TETRA TECH, INC.

TECHNICAL MEMORANDUM

Basewide Groundwater Monitoring Program Report
Winter 2006 (Q1)
Installation Restoration Program Site 24
Vandenberg Air Force Base, California

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Prepared by:
Tetra Tech, Inc.
4213 State Street, Suite 100
Santa Barbara, California 93110

1.0 INTRODUCTION

This report documents the activities and results of the winter 2006 groundwater monitoring at Installation Restoration Program (IRP) Site 24 (Entomology Wash Rack), Vandenberg Air Force Base (AFB), Santa Barbara County, California. Samples were collected at Site 24 by Tetra Tech, Inc. (Tetra Tech) during February and March 2006. The location of Site 24 is shown on Figure 1.

The groundwater monitoring is being completed in accordance with the Basewide Groundwater Monitoring Program (BGMP) Work Plan (Tetra Tech, Inc. 2000a), the BGMP Health and Safety Plan Addendum (Tetra Tech 2000b), the Basewide Sampling and Analysis Plan (Tetra Tech 2003), the BGMP Quality Assurance Project Plan (QAPP) Addendum (Tetra Tech 2004), the Vandenberg AFB Hazardous Waste Management Plan (U.S. Air Force 2002), and the Waste Management Plan Addendum (Tetra Tech 2005a). Regulatory oversight of the work is being performed by the California Department of Toxic Substances Control (DTSC) and the Regional Water Quality Control Board—Central Coast Region (RWQCB).

Site background information is summarized in Section 2.0. The scope of work and methodology for groundwater monitoring are presented in Section 3.0. The results of the quarterly monitoring are presented in Section 4.0. Quality Assurance/Quality Control is discussed in Section 5.0. Recommendations for future sampling are presented in Section 6.0.

A description and history of Site 24, including the site characterization portion of the remedial investigation (RI), can be found in the Supplemental RI Report (HydroGeoLogic, Inc. [HGL] 2004a). The results of previous environmental investigations can be found in the RI Report (HGL 2004b).

2.0 BACKGROUND

2.1 SITE DESCRIPTION

Site 24, known as the Entomology Wash Rack, is located in the main cantonment area of the base, west of the railroad spur adjacent to Utah Avenue and south of Nebraska Avenue (Figure 1). The area surrounding Site 24 consists of three general investigation areas/groundwater regions. These three areas/regions are the Southern Area (Region 1), the Western Area (Region 2), and the Northern Area (Region 3) as illustrated on Figure 1.

Region 1 of Site 24 was formerly used for vehicle maintenance, fueling, and washing. Adjacent to the former vehicle maintenance bay was a sump that contained water and was approximately 9 feet long, 6 feet wide, and 6 feet deep. The sump was removed and approximately 120 cubic yards of soil were excavated by the IT Corporation (now known as Shaw Environmental, Inc.) in 2001 (HGL 2004b). The fueling station had an 11,000-gallon steel fuel tank and associated piping that were removed between 1990 and 1992. Building 11193, located southwest of Region 2, was formerly used as a laundry facility. Contamination sources at Site 24 include pesticides in soil around the entomology wash rack, gasoline associated with the abandoned underground storage tank (UST), diesel and chlorinated solvents associated with former maintenance bay and adjacent sump, and chlorinated solvents associated with the former laundry facility. HGL conducted a pilot study in the northeast portion of Region 2 between 9 October 2003 and 6 February 2004 where CL-Out microbes and permanganate were injected into shallow zone injection wells 24-PIW-8-1 and 24-PIW-8-2 (HGL 2004a). Between 19 September 2005 and 21 September 2005, Versar Inc. and ARCADIS installed one new injection well and three new monitoring wells adjacent to the existing injection wells. These contractors injected molasses substrate in the new injection well (24-PIW-8-3) and the two existing injection wells (24-PIW-8-1 and 24-PIW-8-2) on 11 and 12 January 2006. An increase in total organic carbon and a decrease in pH were observed by Versar

during weekly sampling of nearby wells in January 2006 following injection (Versar 2006). For more information on this project; contact the 30 CES/CEVR. Region 3 is the area north of Regions 1 and 2 and hydrologically downgradient from Regions 1 and 2 in the intermediate and deep groundwater zones. Region 3 does not have significant surface development.

2.2 HYDROGEOLOGY

Site 24 is located on an uplifted late-Pleistocene marine terrace within the Burton Mesa physiogeographic province. Groundwater typically occurs unpredictably in small lenses perched on low-permeability layers on Burton Mesa. At the site, the alluvial deposits overlying the bedrock contain three generalized groundwater zones referred to as the "shallow," "intermediate," and "deep" zones. All three zones have relatively low groundwater recharge rates and minimal groundwater volume. Groundwater flow occurs primarily through small lenses perched on low-permeability layers; through thin, narrow seams between zones of low permeability; or along the bedrock surface following potential paleochannels in the bedrock erosional topography. Natural recharge to the Site 24 area groundwater is primarily from precipitation. Infiltration from precipitation occurs in all unpaved areas. Some runoff is diverted into storm channels that transport water toward IRP Site 20. Irrigation water southwest, west, and northwest of the Site 24 boundary collects in a drainage "wetlands" and may contribute significantly to the groundwater budget in the Site 24 area.

Shallow groundwater occurs as a perched saturated zone overlying a low-permeability clay layer that is encountered from 15 to 25 feet below ground surface (bgs) in the Site 24 area (HGL 2004a). The shallow groundwater zone does not exist north of Regions 1 and 2 (Figure 2A). Intermediate groundwater overlies another distinct low-permeability clay layer that occurs between 35 and 45 feet bgs (HGL 2004a). The intermediate groundwater zone extends north and west from the Site 24 area into Regions 2 and 3 (Figure 2B). Deep groundwater occurs below the intermediate clay layer from 60 feet bgs down to bedrock (HGL 2004a). The deep groundwater zone occurs throughout Regions 1, 2, and 3 (Figure 2C).

Shallow zone groundwater levels measured in February 2006 indicate that groundwater elevations ranged from approximately 443 to 453 feet above mean sea level (msl) (Table 1). The interpreted direction of shallow zone groundwater flow during this timeframe indicates flow in several directions (Figure 2A). Near the southwestern edge of the Site 24 boundary, groundwater flows radially away from a potentiometric high with an average hydraulic gradient of 0.05 feet per foot. Near the northwest trending "unlined drainage route" in Region 2, groundwater flows towards a potentiometric low with an average hydraulic gradient of 0.05 feet per foot.

Intermediate zone groundwater levels measured in February 2006 indicate that groundwater elevations ranged from approximately 420 to 451 feet above msl. During winter 2006, the interpreted direction of intermediate zone groundwater flow at Site 24 was generally to the northeast with an average hydraulic gradient of 0.04 feet per foot in Regions 2 and 3 and generally to the southeast in Region 1 (Figure 2B).

Deep zone groundwater levels measured in February and March 2006 indicate that groundwater elevations ranged from approximately 393 to 449 feet above msl. During winter 2006, the interpreted direction of deep zone groundwater flow at Site 24 was generally to the northeast with an average hydraulic gradient of 0.02 feet per foot in Regions 2 and 3, to the northwest with an average hydraulic gradient of 0.15 feet per foot on the western edge of Region 3, and to the southeast with an average hydraulic gradient of 0.1 feet per foot in Region 1 and the eastern portion of Region 2 (Figure 2C).

3.0 SCOPE OF WORK

The work performed for the winter 2006 groundwater monitoring at Site 24 included measuring groundwater levels, collecting groundwater for field and laboratory analysis, and preparing this report. In addition, MicroPurge pumps were installed in wells 24-PMW-1, 24-MW-9A, 24-MW-22A, 24-MW-3B, and 24-MW-9B during winter 2006.

3.1 GROUNDWATER MONITORING

Fifty-six monitoring wells were sampled at Site 24 during winter 2006. Grundfos pumps, MicroPurge pumps, and a bailer were used for purging groundwater from shallow zone wells 24-PMW-1 through 24-PMW-5, 24-PMW-8, 24-PMW-8-2, 24-PIW-8-1, 24-PIW-8-2, 24-PMW-9 through 24-PMW-11, 24-PMW-13, 24-PMW-18, 24-PMW-19, 24-PMW-21, 24-PMW-22, and 24-PMW-26; intermediate zone wells 24-MW-2, 24-MW-3A, 24-MW-5A, 24-MW-8A, 24-MW-8A-2, 24-MW-9A through 24-MW-12A, 24-MW-14A, 24-MW-15A, 24-MW-22A, 24-MW-26A, and 24-MW-28A through 24-MW-30A; and deep zone wells 24-MW-3B through 24-MW-5B, 24-MW-8B through 24-MW-17B, and 24-MW-19B through 24-MW-27B. Duplicate samples were collected from shallow zone wells 24-PMW-1 and 24-PIW-8-1 and deep zone wells 24-MW-3B, 24-MW-10B, 24-MW-14B, 24-MW-19B, and 24-MW-27B. Deep zone well 24-MW-31B was not sampled due to insufficient water in the well. Intermediate zone wells 24-MW-6 and 24-MW-7 were dry and were not sampled. Sampling was conducted in accordance with the documents cited in Section 1.0. Measured groundwater elevations are presented in Table 1, and groundwater contours are illustrated on Figures 2A, 2B, and 2C. Purge records are provided in Appendix A.

In general, wells were purged until a minimum of one pump and tubing volume of water (for MicroPurge pumps) or a minimum of three well volumes of water (for Grundfos pumps and bailers) were removed and water quality parameters had stabilized. Criteria for determining stabilization are three successive measurements of temperature within ±1 degree Celsius, pH within ±0.1, conductivity within ±5 percent, and a turbidity reading of less than 5 nephelometric turbidity units (NTUs). In cases where stability or a turbidity reading of less than 5 NTUs was not obtained, samples were collected after purging a minimum of five pump and tubing volumes of water (for MicroPurge pumps) or a minimum of five well volumes of water (for Grundfos pumps and bailers).

3.1.1 MicroPurge Groundwater Sampling

MicroPurge sampling was conducted at shallow zone wells 24-PMW-1, 24-PMW-11 and 24-PMW-19, intermediate zone wells 24-MW-2, 24-MW-9A, 24-MW-12A, and 24-MW-22A, and deep zone wells 24-MW-3B, 24-MW-4B, 24-MW-9B, 24-MW-10B, 24-MW-12B, 24-MW-14B, 24-MW-15B, 24-MW-17B, 24-MW-19B, and 24-MW-23B through 24-MW-25B. Pumping rates were calibrated for each well prior to purging to maintain a static water level (i.e., no drawdown). Shallow zone well 24-PMW-19, intermediate zone well 24-MW-12A, and deep zone well 24-MW-4B were sampled after purging at least five well volumes of water due to high turbidity. Dedicated MicroPurge pumps were newly installed in wells 24-PMW-1, 24-MW-9A, 24-MW-22A, 24-MW-3B, and 24-MW-9B for the winter 2006 sampling round. At least five pump and tubing volumes of water were purged from wells 24-PMW-1, 24-MW-9A, 24-MW-22A before sampling in order to better assess water quality parameters after installation of the MicroPurge systems.

3.1.2 Standard Groundwater Sampling

A 2-inch Grundfos pump was used for purging groundwater from all Site 24 monitoring wells sampled this quarter except those listed in Section 3.1.1, which were purged using dedicated MicroPurge pumps,

and well 24-MW-14A, which was purged using a disposable Teflon bailer. All Site 24 wells purged with a 2-inch Grundfos pump or disposable Teflon bailer were sampled after purging a minimum of three well volumes of water, allowing water quality parameters to stabilize, or after sufficient recharge if the well was purged dry. The groundwater in the wells was allowed to sufficiently recharge before the samples were collected with disposable Teflon bailers. Shallow zone wells 24-PMW-2, 24-PMW-4, 24-PMW-5, 24-PMW-13, intermediate zone wells 24-MW-28A, 24-MW-29A, and 24-MW-30A, and deep zone well 24-MW-4B were sampled after purging at least five well volumes of water due to high turbidity.

4.0 RESULTS

Temperature, conductivity, pH, and turbidity were measured in the field during sampling. Readings taken immediately prior to sampling are presented in Table 2. Fixed laboratory analyses were performed by EMAX Laboratories, Inc. in Torrance, California. Samples were analyzed according to the work plan (Tetra Tech 2000a) for dissolved metals (aluminum, antimony, arsenic, cadmium, selenium, and thallium only) by U.S. Environmental Protection Agency (EPA) methods SW6010B and SW7470A, total petroleum hydrocarbons as gasoline (TPHg), total petroleum hydrocarbons as diesel (TPHd), and methanol and ethanol by EPA method SW8015B, volatile organic compounds (VOCs) by EPA method SW8260B, 1,4-dioxane by modified EPA method SW8270C with single ion monitoring (SIM) quantitation, semivolatile organic compounds (SVOCs) by EPA method SW8270C, organochlorine pesticides (OCPs) by EPA method SW8081B, and organophosphorous pesticides (OPPs) by EPA method SW8141A. Laboratory analyses and data validation were conducted according to the QAPP Addendum (Tetra Tech 2004). Data validation was performed on 100 percent of the analytical data. Analytical results are presented in Tables 3 through 7 and on Figures 3A, 3B, and 3C. These figures show analytical results from shallow, intermediate, and deep groundwater wells, respectively. Historical data for key contaminants of concern (COCs) are presented in Table 8 and on Figures 4A, 4B, and 4C. These figures show historical data for key COCs from shallow, intermediate, and deep groundwater wells, respectively. Chain-of-custody records are provided in Appendix B.

4.1 METALS

Groundwater samples collected from the wells listed on Table 3 were analyzed for dissolved aluminum, antimony, arsenic, cadmium, selenium, and thallium concentrations. Dissolved metal concentrations were compared to the California primary maximum contaminant levels (MCLs) and the 95th percentile background threshold values (BTVs) for groundwater (Jacobs Engineering Group, Inc. 1994). Results for dissolved metals are presented in Table 3. Results for dissolved metals above BTVs are presented on Figures 3A, 3B, and 3C.

Dissolved aluminum was detected above the BTV of 1,200 micrograms per liter (µg/L) and the MCL of 1,000 µg/L in groundwater from wells 24-PMW-8 and 24-PMW-13 at concentrations of 71,500 µg/L and 4,470 µg/L, respectively.

Dissolved arsenic was detected above the BTV of 7 µg/L and the MCL of 10 µg/L in groundwater from four wells in the shallow and deep groundwater zones. The highest concentration (266 µg/L) was detected in groundwater from shallow zone well 24-PMW-8.

Dissolved selenium was detected above the BTV of 3 µg/L but below the MCL of 50 µg/L in groundwater from 23 wells in all three groundwater zones. The highest concentration (31.6 µg/L) was detected in groundwater from shallow zone well 24-PMW-8.

Dissolved thallium was detected above the BTV of 1 µg/L and the MCL of 2 µg/L in groundwater from eight wells in all three groundwater zones. However, only the results from intermediate zone well

24-MW-2 and deep zone well 24-MW-10B (parent and duplicate sample) were not qualified for blank contamination. The highest thallium concentration detected that was not qualified for blank contamination (6.2 µg/L) was detected in the duplicate sample from deep zone well 24-MW-10B.

4.2 TOTAL PETROLEUM HYDROCARBONS

Total petroleum hydrocarbons as gasoline were detected in groundwater from 6 of the 9 wells sampled for TPHg (Table 4). The highest concentrations of TPHg were detected in groundwater from shallow zone wells 24-PMW-18 and 24-PMW-1, at concentrations of 22 and 6.4 milligrams per liter (mg/L) (5.8 mg/L in the duplicate sample), respectively (Table 4). Shallow zone wells 24-PMW-1, 24-PMW-2, 24-PMW-8, 24-PMW-18, and 24-PMW-22 were the only Site 24 wells where TPHg concentrations were above the Leaking Underground Fuel Tank (LUFT) action level of 1 mg/L for TPH in groundwater. The TPHg detected in groundwater from wells 24-PMW-8 is a result of chlorinated hydrocarbons (primarily trichloroethene [TCE], tetrachloroethene [PCE], and *cis*-1,2-dichloroethene [DCE]) in the gasoline range, since no benzene, toluene, ethylbenzene, and xylenes (BTEX) were detected in groundwater from these wells. The TPHg detected in groundwater from wells 24-PMW-18 and 24-PMW-22 were also a result of chlorinated hydrocarbons in the gasoline range since the BTEX concentrations (ranging from 0.23 to 2 µg/L) were relatively low compared to detected PCE concentrations of 47,000 and 28,000 µg/L and TCE concentrations of and 67 and 69 µg/L, respectively (Table 5).

An analysis of the relationship between elevated chlorinated solvent concentrations and TPHg detected in groundwater from well 24-PMW-18 was provided in the summer 2005 report (Tetra Tech 2005b). This report concluded that the high concentrations of TPHg in the absence of BTEX at Site 24 are the result of chlorinated hydrocarbons being measured by method SW8015B in the gasoline range. Detections of TPHg in the presence of low concentrations of BTEX and accompanied by high concentrations of PCE and TCE are also caused by the same phenomenon.

Total petroleum hydrocarbons as diesel were detected in groundwater from 13 of the 41 wells sampled for TPHd (Table 4). The highest concentrations of TPHd were detected above the LUFT action level of 1 mg/L for TPH in groundwater from shallow zone wells 24-PMW-8 and 24-PMW-1 at concentrations of 110 and 2.3 mg/L (2.1 mg/L in the duplicate sample), respectively.

Total petroleum hydrocarbon concentrations were similar to those previously detected with the following exceptions (Table 8). TPHd concentrations in groundwater from shallow zone well 24-PMW-8 have increased from 1.1 mg/L in summer 2005 to 52 mg/L in fall 2005, and 110 mg/L in winter 2006. The high TPHd were detected in groundwater from well 24-PMW-8 and the increasing trend may be a result of drilling and well development activities at new nearby wells. TPHd results next quarter will be used to confirm this trend. The TPHd concentration in groundwater from shallow zone well 24-PMW-11 has been decreasing since winter 2005 and was at a historically low concentration of 0.91 mg/L during winter 2006.

4.3 VOLATILE ORGANIC COMPOUNDS

Groundwater collected from all wells sampled during winter 2006 was analyzed for VOCs. VOCs were detected in groundwater samples from 47 of the 56 wells sampled (Table 5).

PCE was detected above the MCL of 5 µg/L in groundwater from 27 wells. The highest shallow zone concentration was detected in groundwater from well 24-PMW-18 (47,000 µg/L) (Figure 3A). The highest intermediate zone concentration was detected in groundwater from well 24-MW-26A (2,900 µg/L) (Figure 3B). The highest deep zone concentration was detected in groundwater from well 24-MW-13B (660 µg/L) (Figure 3C).

TCE was detected above the MCL of 5 µg/L in groundwater from 27 wells. The highest shallow zone concentration was detected in groundwater from well 24-PMW-2 (250 µg/L). The highest intermediate zone TCE concentration was detected in groundwater from wells 24-MW-8A and 24-MW-8A-2 (280 in both). The highest deep zone TCE concentration was detected in groundwater from well 24-MW-14B (1,100 µg/L in the parent sample and 1,000 µg/L in the duplicate sample).

The compound *cis*-1,2-DCE was detected above the MCL of 6 µg/L in groundwater from 13 wells. The highest shallow zone *cis*-1,2-DCE concentrations were detected in the groundwater sample from wells 24-PMW-8-2 and 24-PMW-8 (80 and 65µg/L, respectively). The highest intermediate zone concentration was detected in well 24-MW-8A-2 (55 µg/L), and the highest deep zone concentration was detected in well 24-MW-8B (64 µg/L).

Vinyl chloride was detected above the MCL of 0.5 µg/L in groundwater from 5 wells. The highest vinyl chloride concentration (17 µg/L) was detected in the groundwater sample from shallow zone well 24-PMW-3. Vinyl chloride was not detected in the intermediate zone wells and was detected once above the MCL in groundwater from deep zone well 24-MW-5B at a concentration of 2.8 µg/L.

The compound 1,1-DCE was detected above the MCL of 6 µg/L in groundwater from 5 wells. The highest concentration (520 µg/L) was detected in the groundwater sample from deep zone well 24-MW-5B. The highest concentration detected in groundwater from the shallow zone wells was 200 µg/L in groundwater from well 24-PMW-4. The only concentration detected in the intermediate zone wells was 62 µg/L in groundwater from well 24-MW-5A.

The compound 1,1,1-trichloroethane (TCA) was detected above the MCL of 200 µg/L in groundwater from shallow zone well 24-PMW-4 at a concentration of 620 µg/L.

The compound 1,1,2-TCA was detected above the MCL of 5 µg/L in the groundwater sample from shallow zone well 24-PMW-1 at a concentration of 9.8 µg/L (9 µg/L in the duplicate sample) and in the groundwater sample from deep zone well 24-MW-5B at a concentration of 6.2 µg/L.

The compound 1,1-dichloroethane (DCA) was detected above the MCL of 5 µg/L in groundwater from 5 wells. The highest 1,1-DCA concentration (510 µg/L) was detected in the groundwater sample from shallow zone well 24-PMW-4. This compound was also detected at concentrations above the MCL in groundwater from shallow zone wells 24-PMW-1 and 24-PMW-5, intermediate zone well 24-MW-5A, and deep zone well 24-MW-5B.

The compound 1,2-DCA was detected above the MCL of 0.5 µg/L in groundwater from 5 wells. The highest 1,2-DCA concentration (310 µg/L) was detected in the duplicate groundwater sample from shallow zone well 24-PMW-1 (280 µg/L in the parent sample). The compound was detected in one deep zone well (24-MW-5B) and one intermediate zone well (24-MW-5A) at concentrations of 9.4 and 0.64 µg/L, respectively.

Benzene was detected above the MCL of 1 µg/L in groundwater from 3 of the 56 wells sampled. Benzene was only detected above the MCL in groundwater samples from shallow zone wells. The highest benzene concentrations were detected in the parent and duplicate groundwater samples from shallow zone well 24-PMW-1 (850 and 930 µg/L, respectively).

The compound 1,4-dioxane was detected above the Department of Health Services Notification Level (DHS NL) of 3 µg/L in groundwater from shallow zone well 24-PMW-5 at a concentration of 59 µg/L, from intermediate zone wells 24-MW-5A at a concentration of 110 µg/L; and from deep zone well 24-MW-5B at a concentration of 980 µg/L (Table 6). The 1,4-dioxane result for the sample from well

24-PMW-4 was rejected and not usable for any purpose. However, the compound 1,4-dioxane was detected in groundwater from well 24-PMW-4 at a concentration of 310 µg/L during fall 2005 and is believed to be present in groundwater from this well.

Methanol and ethanol were detected in groundwater from well 24-PMW-8 at concentrations of 11 and 200 mg/L, respectively (Table 4).

Significant concentrations of the ketones acetone and 2-butanone were detected in groundwater from wells 24-PIW-8-1, 24-PIW-8-2, 24-PMW-8, and 24-PMW-8-2. Acetone concentrations in groundwater from these wells ranged from 68 to 6,500 µg/L, and 2-butanone concentrations ranged from 110 to 4,900 µg/L. These high concentrations appear to be related to the remedial activities associated with wells 24-PIW-8-1 and 24-PIW-8-2 (Section 2.1). Additionally, acetone was detected in groundwater from wells 24-PMW-3 and 24-MW-21B at concentrations of 19 µg/L and 14 µg/L, respectively.

In general, VOC concentrations detected above MCLs during winter 2006 were similar to those previously detected, with the following noteworthy exceptions (Table 8 and Figures 4A, 4B, and 4C). During winter 2006, PCE was detected for the first time in groundwater from intermediate zone well 24-MW-15A at a concentration of 15 µg/L, which is above the MCL of 5 µg/L. The PCE concentrations in groundwater from intermediate zone well 24-PMW-10 show an increasing trend. The PCE concentration in groundwater for intermediate zone well 24-MW-8A increased from 11 to 27 µg/L, which represents a historical high. Winter 2006 was the first quarter that PCE was not detected in groundwater from shallow zone well 24-PMW-8-2 following an overall decreasing trend; all previous detections had been above the MCL. In addition, the PCE concentration in groundwater from shallow zone well 24-PIW-8-2 has decreased from 65 µg/L in fall 2004 to 0.79 µg/L in winter 2006, which represents a historical low. Finally, PCE concentrations in groundwater from intermediate zone well 24-MW-22A have generally been increasing, while PCE concentrations in groundwater from shallow zone well 24-PIW-8-1 have decreased to below detection limits.

Between summer 2005 and winter 2006, the TCE concentration in groundwater from shallow zone wells 24-PMW-8-2, 24-PIW-8-1, and 24-PIW-8-2 decreased from 420, 180, and 380 µg/L, respectively, to 11, 11, and 25 µg/L, respectively, which represent historical lows with the exception of a TCE detection of 3 µg/L in well 24-PMW-8-2 during fall 2004. Additionally, TCE was detected at a concentration of 9.5 µg/L in groundwater from intermediate zone well 24-MW-15A, which represents a historical high and the first time TCE has been detected above the MCL of 5 µg/L in groundwater from this well. Deep zone wells 24-MW-9B and 24-MW-20B increased from below the MCL to 10 µg/L and 6.3 µg/L, respectively, which represent historical highs.

Between summer 2005 and winter 2006, the *cis*-1,2-DCE concentration in groundwater from shallow zone well 24-PIW-8-1 decreased from 16 µg/L to 1.3 µg/L, which represents a historical low. Winter 2006 is the first quarter that *cis*-1,2-DCE was not detected in groundwater from shallow zone well 24-PIW-8-2. The *cis*-1,2-DCE concentration in groundwater from intermediate zone well 24-MW-8A-2 shows a decreasing trend and the *cis*-1,2-DCE concentration in groundwater from deep zone well 24-MW-22B increased to above the MCL of 6 µg/L, from 2.7 µg/L during fall 2005 to 8.4 µg/L during winter 2006, which represents a historical high and the first time *cis*-1,2-DCE has been detected above the MCL in groundwater from this well. Additionally, the *cis*-1,2-DCE concentration in well 24-MW-23B has been increasing.

Vinyl chloride was detected for the first time in groundwater from shallow zone well 24-PMW-8 during winter 2006 at a concentration of 3.6 µg/L, which is above the MCL of 0.5 µg/L. In addition, the vinyl chloride concentration in shallow zone well 24-PMW-3 has generally been decreasing.

The 1,1,1-TCA concentration in groundwater from shallow zone well 24-PMW-5 decreased from 480 to 180 µg/L between fall 2005 and winter 2006, which represents a historical low and the first time the compound has been detected below the MCL of 200 µg/L. Additionally, the 1,1,1-TCA concentration in groundwater from shallow zone well 24-PMW-4 decreased from 5,000 µg/L during winter 2005 to 620 µg/L during winter 2006 and the 1,1,1-TCA concentration in groundwater from deep zone well 24-MW-5B has decreased from 110 µg/L during winter 2005 to 66 µg/L during winter 2006.

4.4 SEMIVOLATILE ORGANIC COMPOUNDS

Groundwater samples from 7 of the 56 wells sampled during winter 2006 were analyzed for SVOCs. The compounds benzoic acid, 4-methylphenol, and phenol were detected in groundwater from well 24-PMW-8 at concentrations of 1,800, 1,000, and 1,900 µg/L, respectively. Naphthalene was detected in the sample from well 24-PMW-2 at a concentration of 5.7 µg/L.

4.5 PESTICIDES

Groundwater samples collected from shallow zone wells 24-PMW-1, 24-PMW-2, and 24-PMW-3 were analyzed for OCPs and OPPs. Five OCPs were detected in groundwater from well 24-PMW-1 and one OCP was detected in the groundwater from well 24-PMW-3 (Table 7). Heptachlor epoxide and gamma-benzene hexachloride (lindane) were detected above their respective MCLs of 0.01 and 0.2 µg/L in the duplicate sample from well 24-PMW-1 at concentrations of 0.092 and 0.31 µg/L, respectively. OPPs were not detected in groundwater from well 24-PMW-2.

5.0 QUALITY ASSURANCE/QUALITY CONTROL

All of the analytical data presented in this report have been validated according to the QAPP Addendum (Tetra Tech 2004). The data validation process includes review of sample preservation, temperature, and hold times; detection and quantitation limits; instrument calibration; and equipment blank, trip blank, method blank, laboratory control sample, and matrix spike/matrix spike duplicate. Data validation qualifiers and comments are provided on the data tables to indicate the results of the data validation and to quantitatively indicate the usability of the data. In addition, field sampling records are reviewed to assess the potential for any field conditions to adversely impact the data quality.

Selenium and thallium analytical results were qualified for blank contamination due to their presence in the associated method blanks. The 1,4-dioxane result for the sample from well 24-PMW-4 was rejected and is not usable for any purpose. These discrepancies are considered minor and do not significantly impact the data quality or interpretations presented in this report. The data quality objectives for the winter 2006 sampling at Site 24 were achieved.

6.0 RECOMMENDATIONS

In the fall 2005 Groundwater Monitoring Report, Tetra Tech and the Air Force made the following recommendations:

1. Adding a screening round of analysis for 1,2,3-trichloropropane (TCP) for wells 24-PMW-4, 24-PMW-5, 24-MW-5A, 24-MW-5B, 24-MW-8A, 24-MW-8B, 24-PMW-8, 24-MW-11A, 24-MW-14B, 24-PMW-18, 24-MW-26A, 24-MW-26B during spring 2006. The RWQCB and DTSC requested that the Air Force reevaluate the conceptual site model, identify data gaps, and recommend actions to fill those data gaps as well as considering concentrations of TCP in other site wells when preparing recommendations for further sampling of emergent chemicals (Comment 2). The Air Force concurred with the State and provided a revised recommendation

for sampling TCP at Site 24 in response to State comments on the fall 2005 report, dated 26 May 2006. The Air Force has not received a response from the State yet on the Air Force response to State comments.

2. Add a screening round of analysis for 1,4-dioxane for wells 24-PMW-4, 24-PMW-5, 24-MW-5A, 24-MW-5B, 24-MW-8A, 24-MW-8B, 24-PMW-8, 24-MW-11A, 24-MW-14B, 24-PMW-18, 24-MW-26A, and 24-MW-26B during spring 2006. The RWQCB and DTSC requested that the Air Force reevaluate the conceptual site model, identify data gaps, and recommend actions to fill those data gaps as well as considering concentrations of 1,4-dioxane in other site wells when preparing recommendations for further sampling of emergent chemicals (Comment 2). The Air Force concurred with the State and provided a revised recommendation for sampling 1,4-dioxane at Site 24 in response to State comments on the fall 2005 report, dated 26 May 2006. The Air Force has not received a response from the State yet on the Air Force response to State comments.

3. Remove TPHg analysis for well 24-PMW-18. The RWQCB and DTSC concurred with this recommendation. TPHg sampling may be reinstated as necessary to support site closure decisions.

4. Reduce the TPHd sampling frequency for shallow zone well 24-PMW-22 from quarterly to annually during the winter quarters beginning with the spring 2006 sampling round. The RWQCB and DTSC concurred with this recommendation.

5. Remove TPHd analysis for intermediate zone well 24-MW-3A beginning with the spring 2006 sampling round. The RWQCB and DTSC concurred with this recommendation.

6. Reduce the TPHd sampling frequency for intermediate zone well 24-MW-8A from quarterly to annually during the winter quarters beginning with the spring 2006 sampling round. The RWQCB and DTSC concurred with this recommendation.

7. Reduce the TPHd sampling frequency for intermediate zone well 24-MW-12A from quarterly to semiannually during the winter and summer quarters beginning with the spring 2006 sampling round. The RWQCB and DTSC concurred with this recommendation.

8. Reduce the sampling frequency for intermediate zone wells 24-MW-14A and 24-MW-15A from quarterly to semiannually during the winter and summer quarters beginning with the spring 2006 sampling round. We recommend continuing to monitor water levels in these wells quarterly for use in groundwater elevation contouring. The RWQCB and DTSC concurred with this recommendation.

9. Remove TPHd analysis for intermediate zone well 24-MW-14A beginning with the spring 2006 sampling round. The RWQCB and DTSC concurred with this recommendation.

10. Reduce the TPHd sampling frequency for intermediate zone well 24-MW-22A from quarterly to annually during the winter quarters beginning with the spring 2006 sampling round. The State concurred with this recommendation.

11. Reduce the sampling frequency for intermediate zone well 24-MW-30A from quarterly to annually during the winter quarters beginning with the spring 2006 sampling round. The RWQCB and DTSC did not concur with this recommendation. Quarterly monitoring will continue until a clearer trend has been established.

12. Reducing the TPHd sampling frequency for deep zone well 24-MW-3B from quarterly to annually during the winter quarters beginning with the spring 2006 sampling round. The RWQCB and DTSC concurred with this recommendation.

The spring 2006 sampling will be conducted according to the work plan (Tetra Tech 2000a).

7.0 REFERENCES

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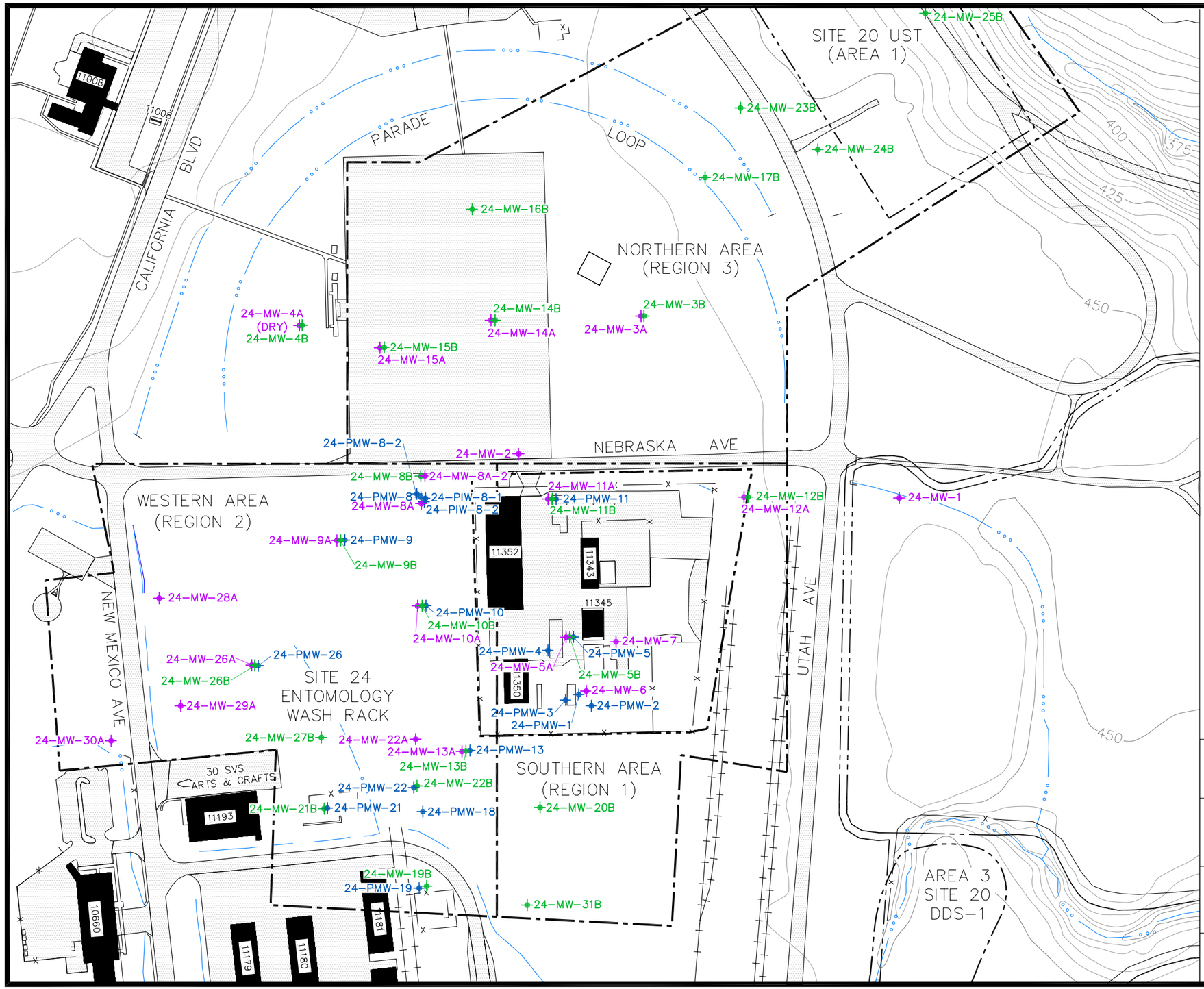


LEGEND

- 200 — CONTOUR LINE, 5-FOOT INTERVALS (FEET ABOVE MSL, NAVD 1988)
- X — FENCE
- PAVED ROAD OR STREET
- 1788 — BUILDING
- CONCRETE OR PAVED AREAS
- UNLINED DRAINAGE ROUTE
- SITE BOUNDARY
- SITE 24 REGIONS
- 24-PMW-2 — SHALLOW GROUNDWATER MONITORING WELL
- 24-MW-2 — INTERMEDIATE GROUNDWATER MONITORING WELL
- 24-MW-3B — DEEP GROUNDWATER MONITORING WELL

N

0 100' 200' 300'

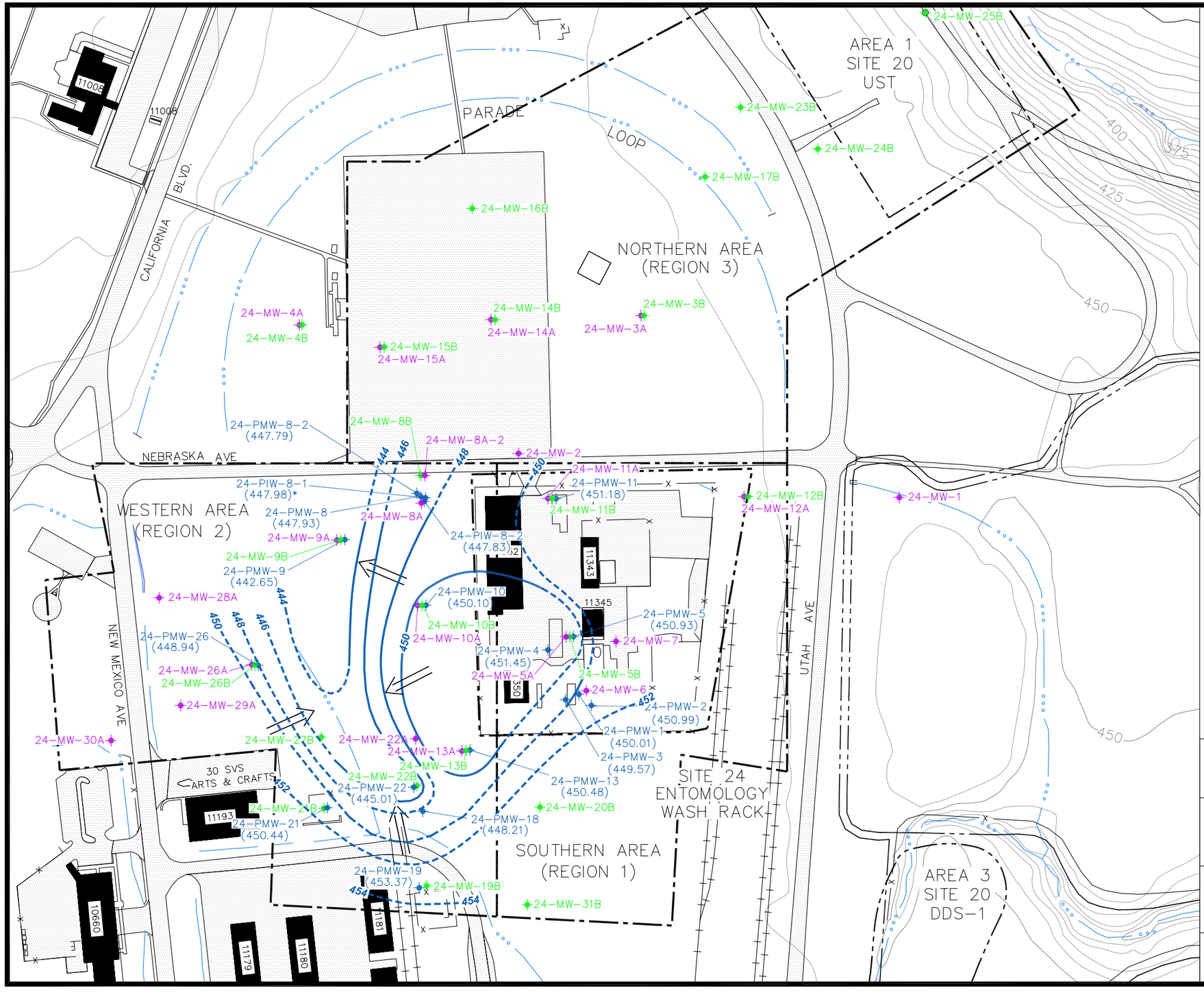
SCALE

UNITED STATES AIR FORCE
VANDENBERG AIR FORCE BASE

SITE 24
SITE PLAN AND
GROUNDWATER SAMPLING LOCATIONS
FALL 2005

TETRA TECH, INC.
4213 State Street, Suite 100
Santa Barbara, CA 93110-2847

TASK NO.	DATE	DRAWN BY	MADE FROM	DWG NO.	Figure
99105-18	1/31/06	PRICHARD	TAB21	5442	1



LEGEND

- 200 — CONTOUR LINE, 5-FOOT INTERVALS (FEET ABOVE MSL, NAVD 1988)
- X — FENCE
- PAVED ROAD OR STREET
- 1788 — BUILDING
- CONCRETE OR PAVED AREAS
- UNLINED DRAINAGE ROUTE
- SITE BOUNDARY
- SITE 24 REGIONS
- 24-PMW-2 (450.99) — SHALLOW GROUNDWATER MONITORING WELL WITH GROUNDWATER ELEVATION
- 24-MW-2 — INTERMEDIATE GROUNDWATER MONITORING WELL
- 24-MW-3B — DEEP GROUNDWATER MONITORING WELL
- 452 — SHALLOW GROUNDWATER ELEVATION CONTOUR APPROXIMATED BY LINEAR INTERPOLATION (DASHED WHERE INFERRED)
- INFERRED GROUNDWATER FLOW DIRECTION

NOTE(S): GROUNDWATER ELEVATIONS IN FEET ABOVE MEAN SEA LEVEL AS MEASURED IN NOVEMBER AND FEBRUARY 2006.

N

0 100' 200' 300'

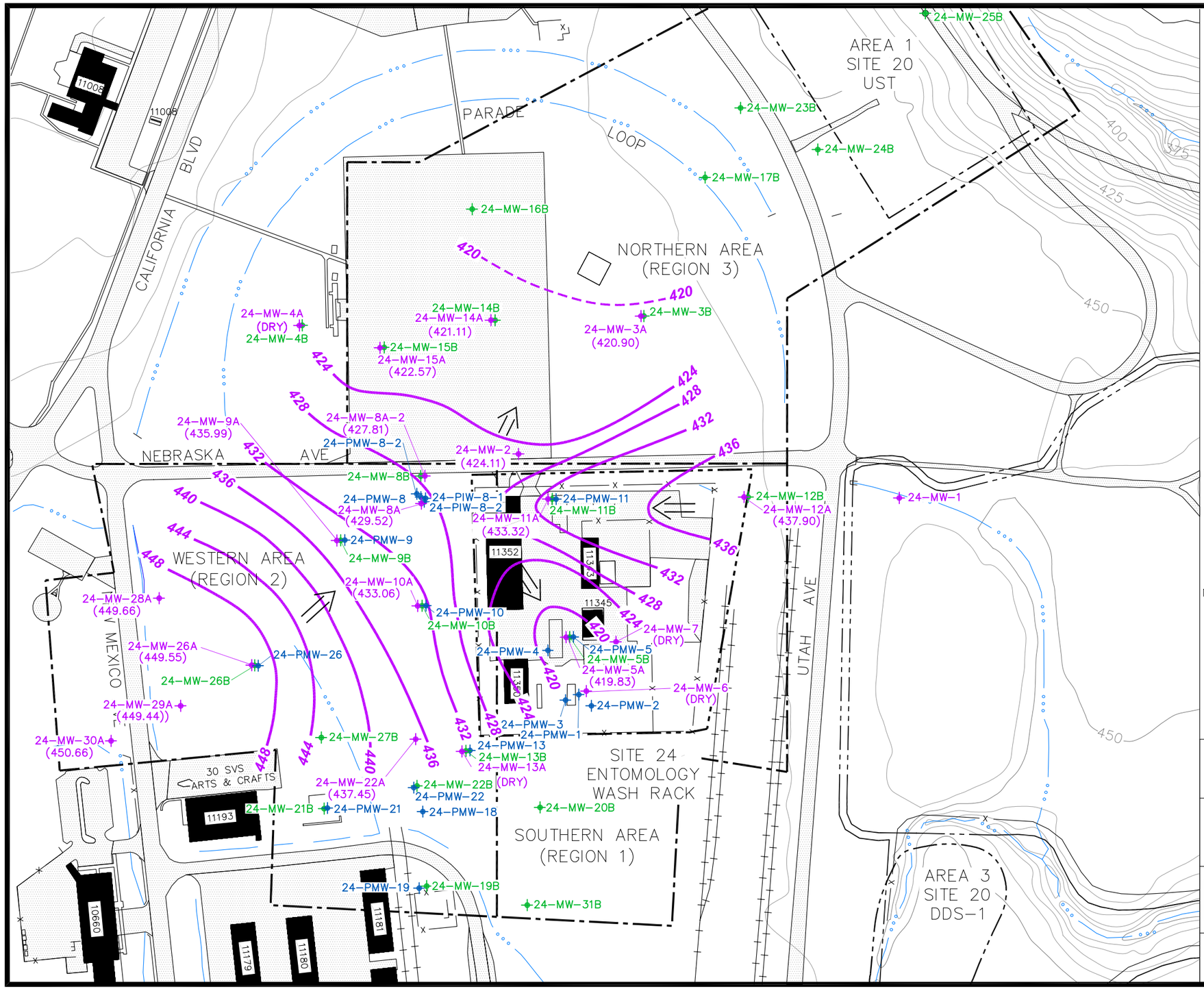
SCALE

UNITED STATES AIR FORCE
VANDENBERG AIR FORCE BASE

SITE 24
SITE PLAN AND SHALLOW
GROUNDWATER CONTOURS
WINTER 2006

TETRA TECH, INC.
4213 State Street, Suite 100
Santa Barbara, CA 93110-2847

TASK NO.	DATE	DRAWN BY	MADE FROM	DWG NO.	Figure
99105-18	6/5/06	PRICHARD	TAB21	5540	2A



LEGEND

- 200 — CONTOUR LINE, 5-FOOT INTERVALS (FEET ABOVE MSL, NAVD 1988)
- X — FENCE
- PAVED ROAD OR STREET
- 1788 — BUILDING
- CONCRETE OR PAVED AREAS
- UNLINED DRAINAGE ROUTE AND FLOW DIRECTION
- SITE BOUNDARY
- SITE 24 REGIONS
- 24-PMW-2 — SHALLOW GROUNDWATER MONITORING WELL
- 24-MW-2 (424.11) — INTERMEDIATE GROUNDWATER MONITORING WELL WITH GROUNDWATER ELEVATION
- 24-MW-3B — DEEP GROUNDWATER MONITORING WELL
- DRY — WELL WAS DRY OR HAD INSUFFICIENT WATER FOR SAMPLING
- 448 — 448 — INTERMEDIATE GROUNDWATER ELEVATION CONTOUR APPROXIMATED BY LINEAR INTERPOLATION (DASHED WHERE INFERRED)
- INFERRED GROUNDWATER FLOW DIRECTION

NOTE(S): GROUNDWATER ELEVATIONS IN FEET ABOVE MEAN SEA LEVEL AS MEASURED IN FEBRUARY 2006.

N

0 100' 200' 300'

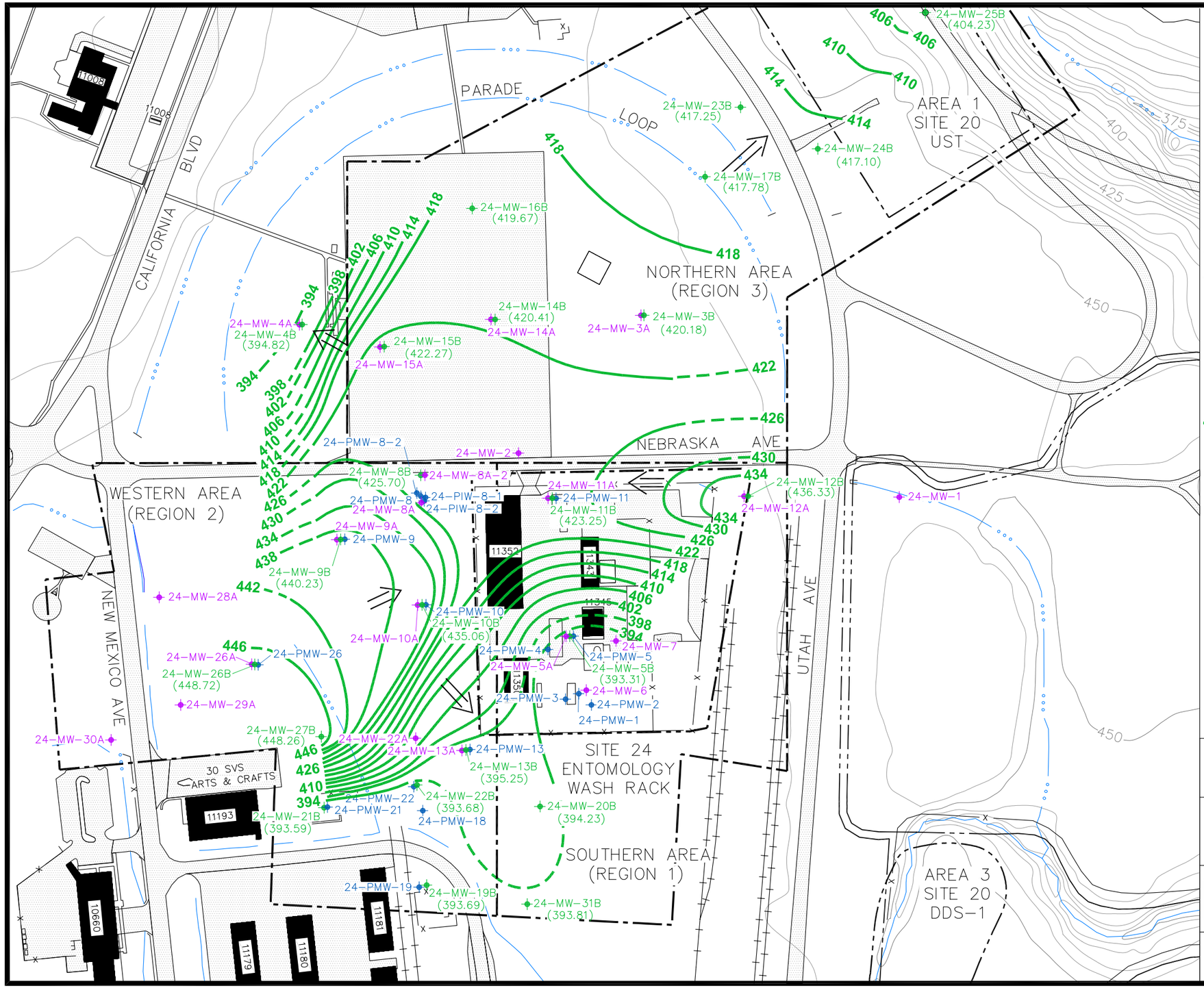
SCALE

UNITED STATES AIR FORCE
VANDENBERG AIR FORCE BASE

SITE 24
SITE PLAN AND INTERMEDIATE
GROUNDWATER CONTOURS
WINTER 2006

TETRA TECH, INC.
4213 State Street, Suite 100
Santa Barbara, CA 93110-2847

TASK NO.	DATE	DRAWN BY	MADE FROM	DWG NO.	Figure
99105-18	6/5/06	PRICHARD	TAB21	5541	2B



LEGEND

- 200 — CONTOUR LINE, 5-FOOT INTERVALS (FEET ABOVE MSL, NAVD 1988)
- X — FENCE
- PAVED ROAD OR STREET
- 1788 — BUILDING
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- UNLINED DRAINAGE ROUTE
- SITE BOUNDARY
- SITE 24 REGIONS
- 24-PMW-2 — SHALLOW GROUNDWATER MONITORING WELL
- 24-MW-2 — INTERMEDIATE GROUNDWATER MONITORING WELL
- 24-MW-3B (420.18) — DEEP GROUNDWATER MONITORING WELL WITH GROUNDWATER ELEVATION
- 422—422 — DEEP GROUNDWATER ELEVATION CONTOUR APPROXIMATED BY LINEAR INTERPOLATION (DASHED WHERE INFERRED)
- INFERRED GROUNDWATER FLOW DIRECTION

NOTE(S): GROUNDWATER ELEVATIONS IN FEET ABOVE MEAN SEA LEVEL AS MEASURED IN NOVEMBER AND FEBRUARY 2006.

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0 100' 200' 300'

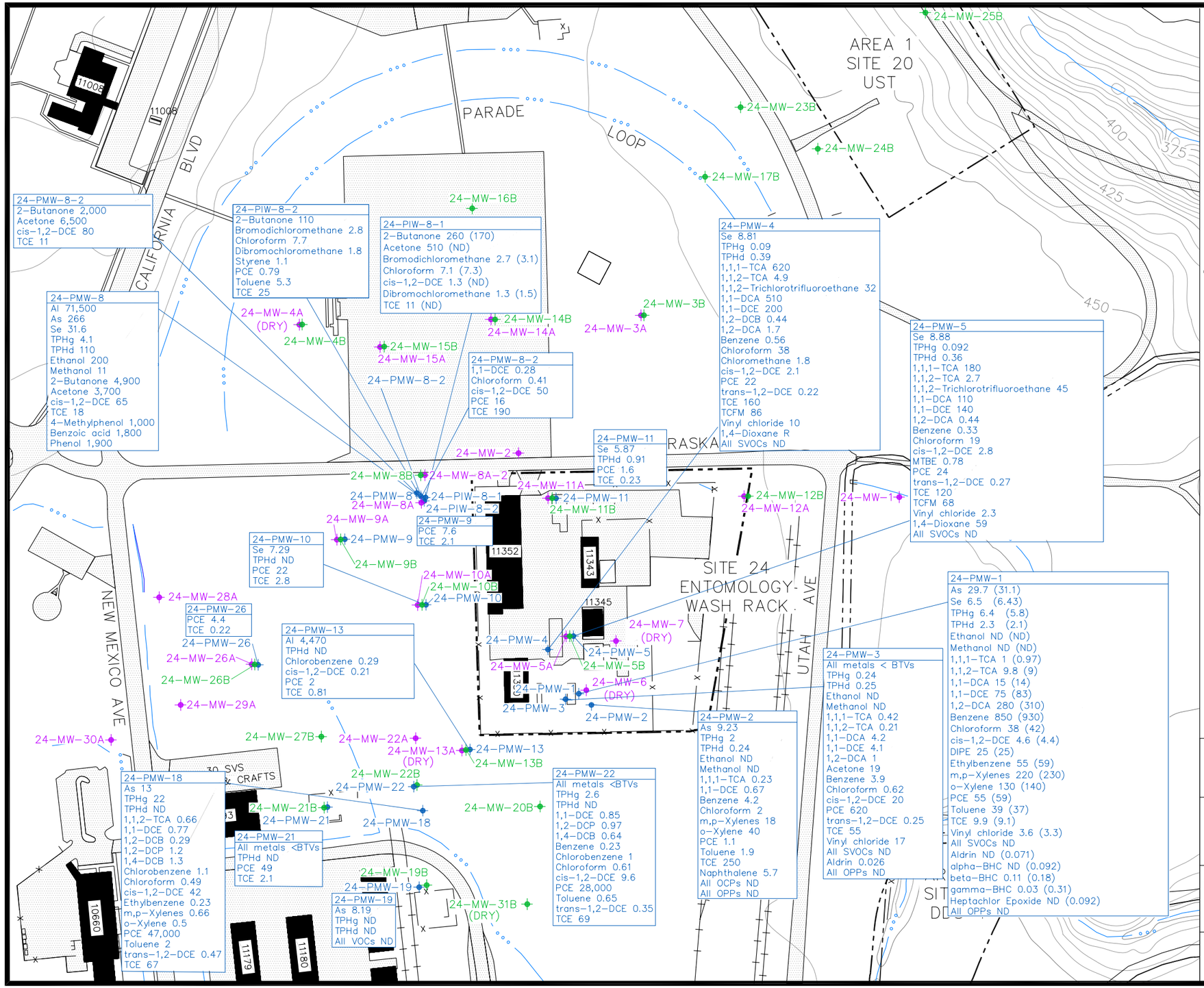
SCALE

UNITED STATES AIR FORCE
VANDENBERG AIR FORCE BASE

SITE 24
SITE PLAN AND DEEP
GROUNDWATER CONTOURS
WINTER 2006

TETRA TECH, INC.
4213 State Street, Suite 100
Santa Barbara, CA 93110-2847

TASK NO.	DATE	DRAWN BY	MADE FROM	DWG NO.	Figure
99105-18	6/5/06	PRICHARD	TAB21	5542	2C



LEGEND

- 200 — CONTOUR LINE, 5-FOOT INTERVALS (FEET ABOVE MSL, NAVD 1988)
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- SITE BOUNDARY
- 24-PMW-2 — SHALLOW GROUNDWATER MONITORING WELL
- 24-MW-2 — INTERMEDIATE GROUNDWATER MONITORING WELL
- 24-MW-3B — DEEP GROUNDWATER MONITORING WELL
- ND — NOT DETECTED; RESULT IS LESS THAN THE METHOD DETECTION LIMIT
- DRY — WELL WAS DRY OR HAD INSUFFICIENT WATER FOR SAMPLING
- R — THE DATA WERE REJECTED THROUGH THE VALIDATION PROCESS

NOTE(S): RESULTS FOR ALL COMPOUNDS EXCEPT TPHg AND TPHd ARE IN µg/L. TPHg AND TPHd RESULTS ARE IN mg/L. METALS RESULTS ARE FOR FILTERED GROUNDWATER CONCENTRATIONS ABOVE BTVs. SUSPECTED LABORATORY CONTAMINANTS NOT SHOWN. RESULTS IN PARENTHESES ARE FROM DUPLICATE SAMPLES. B-QUALIFIED RESULTS NOT SHOWN. R-QUALIFIED RESULTS NOT SHOWN.

N

0 100' 200' 300'

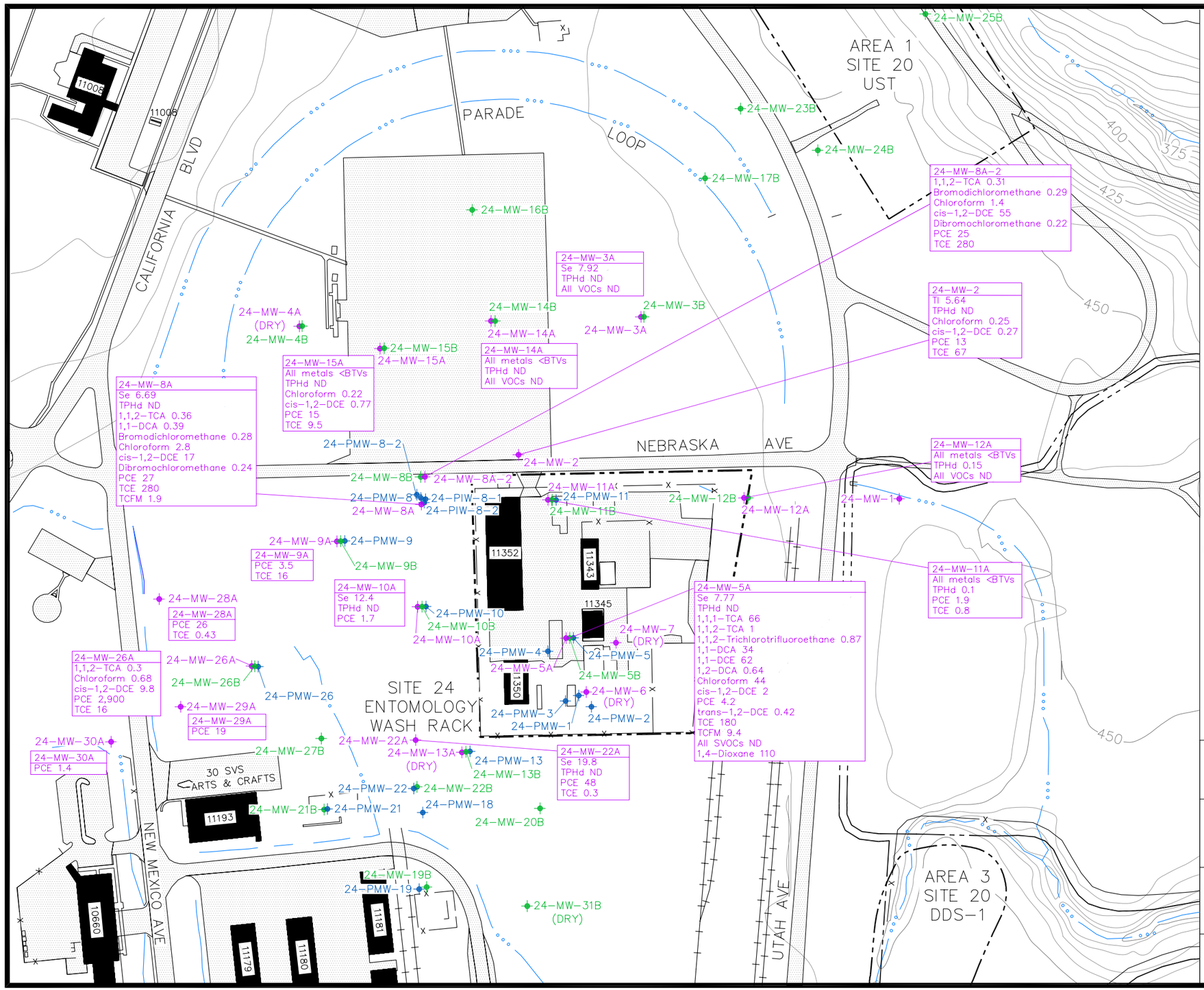
SCALE

UNITED STATES AIR FORCE
VANDENBERG AIR FORCE BASE

SITE 24
ANALYTICAL RESULTS
IN SHALLOW DEPTH INTERVAL
WINTER 2006

TETRA TECH, INC.
4213 State Street, Suite 100
Santa Barbara, CA 93110-2847

TASK NO.	DATE	DRAWN BY	MADE FROM	DWG NO.	Figure
99105-18	6/5/06	PRICHARD	TAB21	5649	3A



LEGEND

- 200 — CONTOUR LINE, 5-FOOT INTERVALS (FEET ABOVE MSL, NAVD 1988)
- X — FENCE
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- CONCRETE OR PAVED AREAS
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- SITE BOUNDARY
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- 24-MW-2 — INTERMEDIATE GROUNDWATER MONITORING WELL
- 24-MW-3B — DEEP GROUNDWATER MONITORING WELL
- ND — NOT DETECTED; RESULT IS LESS THAN THE METHOD DETECTION LIMIT
- DRY — WELL WAS DRY OR HAD INSUFFICIENT WATER FOR SAMPLING

NOTE(S): RESULTS FOR ALL COMPOUNDS EXCEPT TPHg AND TPHd ARE IN µg/L. TPHg AND TPHd RESULTS ARE IN mg/L. METALS RESULTS ARE FOR FILTERED GROUNDWATER CONCENTRATIONS ABOVE BTVs. SUSPECTED LABORATORY CONTAMINANTS NOT SHOWN. B-QUALIFIED CONTAMINANTS NOT SHOWN.

N

0 100' 200' 300'

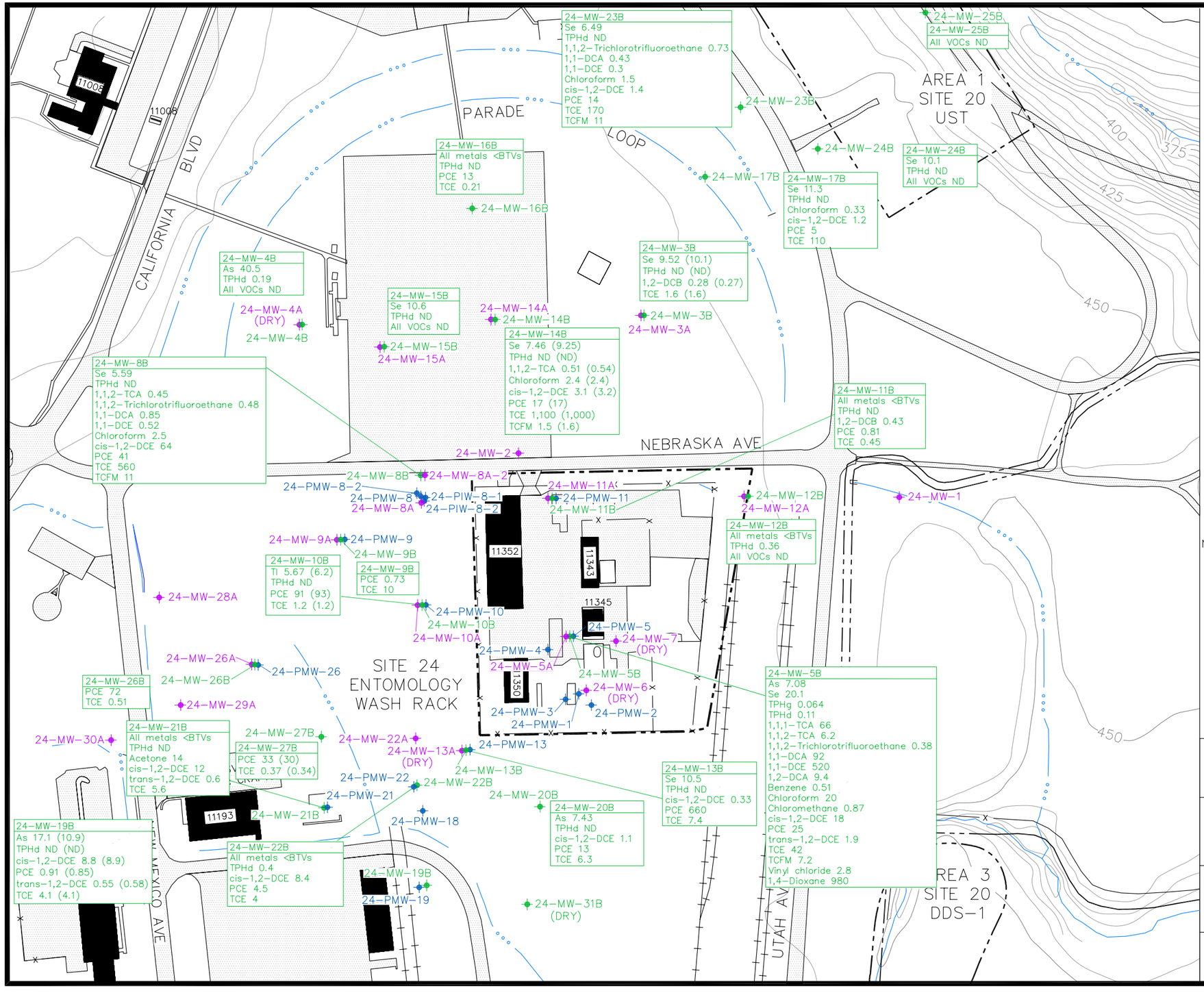
SCALE

UNITED STATES AIR FORCE
VANDENBERG AIR FORCE BASE

SITE 24
ANALYTICAL RESULTS IN
INTERMEDIATE DEPTH INTERVAL
WINTER 2006

TETRA TECH, INC.
4213 State Street, Suite 100
Santa Barbara, CA 93110-2847

TASK NO.	DATE	DRAWN BY	MADE FROM	DWG NO.	Figure
99105-18	5/22/06	RANDALL	TAB21	5650	3B



UNITED STATES AIR FORCE
VANDENBERG AIR FORCE BASE

SITE 24
ANALYTICAL RESULTS IN DEEP DEPTH INTERVAL
WINTER 2006

TETRA TECH, INC.
4213 State Street, Suite 100
Santa Barbara, CA 93110-2847

TASK NO.	DATE	DRAWN BY	MADE FROM	DWG NO.	Figure
99105-18	6/5/06	PRICHARD	TAB21	5651	3C

24-PMW-8	1,1,1-TCA	1,1,2-TCA	1,1-DCA	1,1-DCE	cis-1,2-DCE	PCE	TCE	TPHd	TPHg
Dec-02	ND	ND	0.45	0.72	154	41.6	758	NA	NA
Oct-03	ND	ND	ND	ND	90.8	30.8	399	NA	NA
Nov-03	ND	0.76	ND	ND	125	67.7	595	NA	NA
Jan-04	ND	0.49	ND	ND	87.1	38.2	417	NA	NA
Aug-04	ND	0.33	ND	ND	109	33.4	759	NA	NA
Dec-04	ND	0.5	ND	ND	111	25.9	342	NA	NA
Fall-04	ND	ND	ND	0.54	340	4.7	4.4	6.1	0.021
Win-05	ND	ND	ND	0.21	73	3	15	12ª	0.027
Spr-05	1.3	ND	0.35	0.38	92	4.2	53	1	ND
Sum-05	0.31	ND	ND	0.29	170	0.27	4.8	1.1	ND
Fall-05	ND	ND	ND	ND	130	ND	1.8	52	0.35
Win-06	ND	ND	ND	ND	65	ND	18	110	4.1

24-PMW-8-2	1,1,2-TCA	1,1-DCE	cis-1,2-DCE	PCE	TCE
Oct-03	ND	0.44	190	33.4	393
Nov-03	ND	ND	156	42.3	358
Jan-04	ND	ND	127	30.7	287
Aug-04	0.31	ND	227	28.6	586
Dec-04	ND	0.38	171	27.4	293
Fall-04	ND	1.1	540	7	3
Win-05	ND	ND	14	7.2	55
Spr-05	0.21	0.29	120	27	540
Sum-05	ND	0.25	110	17	420
Fall-05	ND	0.28	50	16	190
Win-06	ND	ND	80	ND	11

24-PMW-9	PCE	TCE
Dec-02	ND	ND
Nov-03	DRY	DRY
Fall-04	DRY	DRY
Win-05	DRY	DRY
Spr-05	10	2.6
Sum-05	6.9	2
Fall-05	10	1.4
Win-06	7.6	2.1

24-PMW-26	PCE	TCE
Dec-03	ND	ND
Fall-04	ND	ND
Win-05	3.9	0.52
Spr-05	0.67	ND
Sum-05	0.21	ND
Fall-05	0.94	ND
Win-06	4.4	0.22

24-PMW-10	PCE	TCE
Dec-02	0.52	0.49
Nov-03	10.8	3.8
Fall-04	7.6	2
Win-05	3.6	1.8
Spr-05	4.4	0.82
Sum-05	3.4	2
Fall-05	21	1
Win-06	22	2.8

24-PMW-21	PCE	TCE	TPHg
Dec-03	38.1	1.1	NA
Fall-04	34	1	NA
Win-05	36	1.5	ND
Spr-05	38	1.3	ND
Sum-05	41	1.2	0.02
Fall-05	36	1.2	0.024
Win-06	49	2.1	NA

24-PMW-18	1,1,1-TCA	1,1,2-TCA	1,1-DCE	cis-1,2-DCE	PCE	TCE	TPHd	TPHg
Dec-02	0.30	ND	2.9	18.7	108,000	61.2	NA	NA
Nov-03	0.3	ND	3.1	23.8	185,000	72.8	NA	NA
Fall-04	ND	0.43	1.6	74	24,000	76	NA	NA
Win-05	ND	0.81	1.8	35	78,000	62	ND	27
Spr-05	ND	ND	ND	31	92,000	72	0.096	43
Sum-05	ND	0.47	1.4	94	61,000	82	ND	26
Fall-05	ND	ND	ND	ND	83,000	NDb	0.1	38
Win-06	ND	0.66	0.77	42	47,000	67	ND	22

24-PMW-19	All Key COCs
Nov-03	ND
Fall-04	ND
Win-05	ND
Spr-05	ND
Sum-05	ND
Fall-05*	ND
Win-06	ND

24-PIW-8-2	1,1,2-TCA	1,1-DCE	cis-1,2-DCE	PCE	TCE	Vinyl chloride
Oct-03	0.63	ND	56.4	44	348	ND
Nov-03	ND	ND	30.7	12.9	330	ND
Jan-04	ND	ND	6.2	2.6	57.3	ND
Aug-04	ND	ND	63.0	13.6	281	ND
Dec-04	ND	ND	13.7	3.3	107	ND
Fall-04	ND	ND	43	65	260	ND
Win-05	ND	ND	43	20	320	5.5
Spr-05	0.21	ND	34	18	300	0.27
Sum-05	0.63	0.25	34	12	380	0.66
Fall-05	ND	ND	11	18	61	ND
Win-06	ND	ND	ND	0.79	25	ND

24-PIW-8-1	cis-1,2-DCE	PCE	TCE	Vinyl chloride
Fall-04	24	29	150	ND
Win-05	1.7	1.7	18	0.56
Spr-05	9.4	10	110	0.2
Sum-05	16	12	180	ND
Fall-05	10	1.7	30	ND
Win-06	1.3	ND	11	ND

24-PMW-11	PCE	TCE	TPHd
Dec-02	1.3	1.0	NA
Nov-03	1.3	0.53	NA
Fall-04	1	0.57	2.2
Win-05	1.6	0.25	3.2
Spr-05	1.8	0.33	2.6
Sum-05	0.85	0.46	1.3
Fall-05*	1.4	0.24	1.3
Win-06	1.6	0.23	0.91

24-PMW-4	1,1,1-TCA	1,1,2-TCA	1,1-DCA	1,1-DCE	1,2-DCA	Benzene	cis-1,2-DCE	PCE	TCE	Vinyl chloride	TPHd	TPHg	1,4-Dioxane
May-01	684	1.73	154	161	ND	ND	2.44	19.3	164	ND	0.121	0.251	ND
Dec-02	757	3.5	247	192	ND	0.57	3.1	25.2	147	ND	0.027	0.460	NA
Nov-03	1,370	5.4	484	385	2.3	0.61	2.0	31.1	167	ND	NA	NA	NA
Fall-04	1,700	9.9	880	400	3.2	0.55	1.2	24	120	20	3.4	0.12	NA
Win-05	5,000	17	1,500	470	6.5	0.64	0.84	50	62	11	2.3	0.17	NA
Spr-05	2,600	11	970	350	3.9	0.46	1.2	39	79	0.6	1.6	ND	NA
Sum-05	1,100	6.3	600	200	1.8	0.38	0.96	24	80	ND	0.75	0.098	NA
Fall-05	1,300	5.7	610	280	1.9	0.47	1.4	36	110	ND	0.46	0.1	310
Win-06	620	4.9	510	200	1.7	0.56	2.1	22	160	10	0.39	0.09	280ª

24-PMW-5	1,1,1-TCA	1,1,2-TCA	1,1-DCA	1,1-DCE	1,2-DCA	Benzene	cis-1,2-DCE	PCE	TCE	Vinyl chloride	TPHd	TPHg	1,4-Dioxane
May-01	886	2.16	192	173	ND	ND	2.37	18.7	84.3	ND	0.268	0.314	ND
Dec-02	794	3.1	192	192	ND	ND	2.3	91.1	84.4	ND	0.062	0.490	NA
Nov-03	2,200	10.8	326	278	1.8	ND	1.1	27.3	50	ND	NA	NA	NA
Fall-04	1,500	13	320	250	2	0.21	1.1	20	52	ND	3.4	0.074	NA
Win-05	1,500	16	310	220	2.1	0.29	1.5	18	45	0.5	3.5	0.083	NA
Spr-05	1,300	12	300	220	1.8	ND	1.6	19	54	0.21	2.1	ND	NA
Sum-05	1,800	12	280	170	1.5	0.2	1.8	19	33	3.1	2.5	0.085	NA
Fall-05	480	4.1	210	220	0.64	0.36	2.2	20	130	9.6	0.46	0.064	100
Win-06	180	2.7	110	140	0.44	0.33	2.8	24	120	2.3	0.36	0.92	59

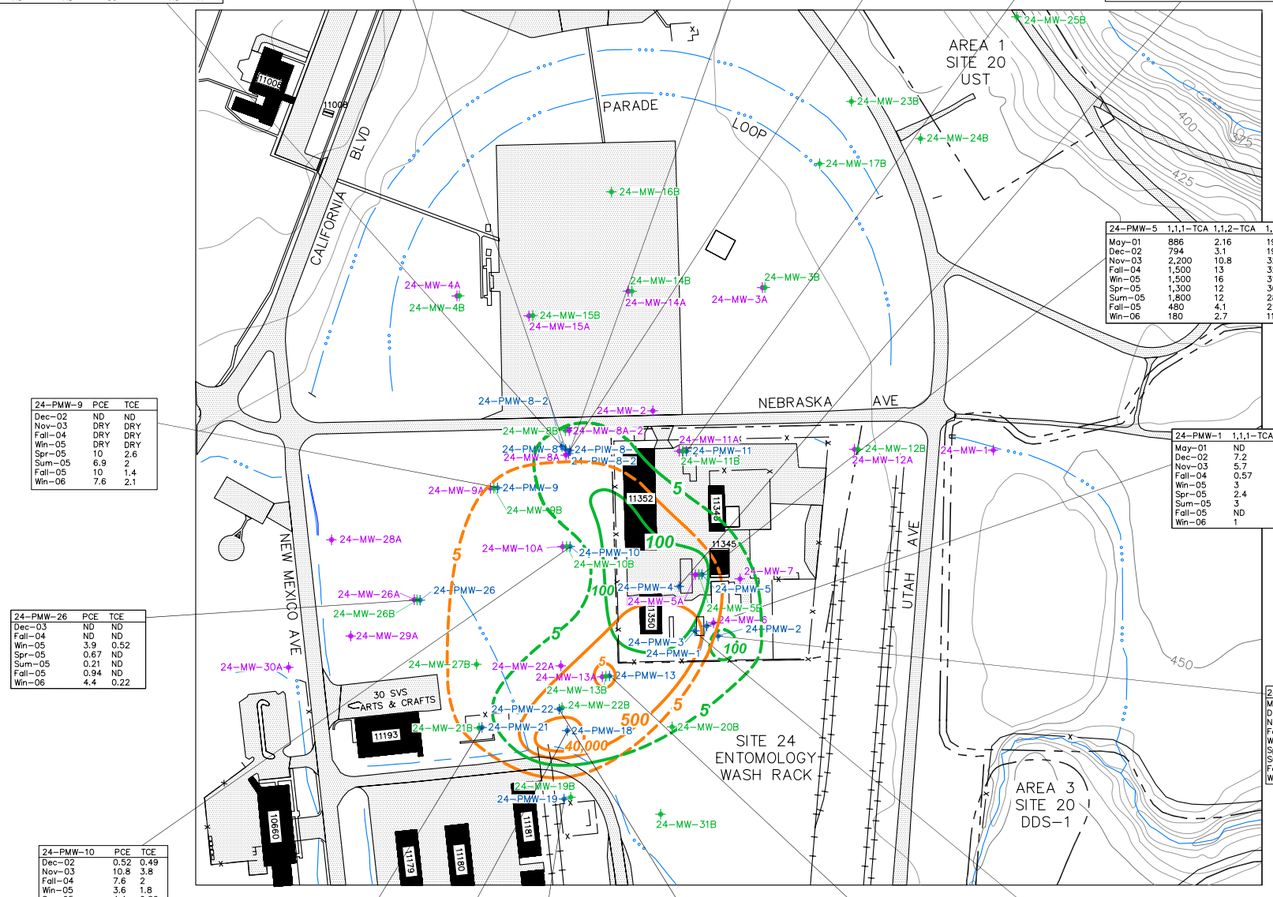
24-PMW-1	1,1,1-TCA	1,1,2-TCA	1,1-DCA	1,1-DCE	1,2-DCA	Benzene	cis-1,2-DCE	PCE	TCE	TPHd	TPHg	1,4-Dioxane
May-01	ND	ND	31.1	104	396	1,620	ND	102	10.6	3.850	11.7	ND
Dec-02	7.2	ND	18.6	55.2	169	940	ND	96.4	16.8	1	5.1	NA
Nov-03	5.7	ND	18	66.7	220	810	4.0	103	8.1	NA	NA	NA
Fall-04	0.57	ND	15	45	270	980	ND	32	6.8	3.2	11	NA
Win-05	3	10	21	37	220	650	5.4	55	9.5	3.1	9.5	NA
Spr-05	2.4	38	24	50	15	1,200	5.5	54	15	NA	6.5	NA
Sum-05	3	12	18	57	260	1,100	ND	38	7.3	2.8	6.7	NA
Fall-05	ND	ND	19	44	260	1,100	ND	34	8.2	2.3	5.4	NA
Win-06	1	9.8	15	83	310	930	4.6	59	9.9	2.3	6.4	NA

24-PMW-2	1,1,1-TCA	1,1,2-TCA	1,1-DCA	1,1-DCE	1,2-DCA	Benzene	PCE	TCE	TPHd	TPHg	1,4-Dioxane
May-01	ND	ND	ND	1.49	ND	3.69	0.811	355	0.124	0.035	ND
Dec-02	1.6	ND	ND	1.3	4.4	8.7	2.6	230	0.429	0.490	NA
Nov-03	ND	ND	ND	ND	ND	3.3	1.8	248	NA	NA	NA
Fall-04	ND	ND	ND	0.9	ND	2.8	0.5	190	0.11	0.52	NA
Win-05	ND	1.2	ND	1.5	ND	3.5	0.78	300	0.12	0.81	NA
Spr-05	ND	0.46	ND	1	ND	3.4	1.1	290	NA	0.75	NA
Sum-05	1.1	ND	0.29	0.93	ND	3.4	0.76	220	0.29	1.7	NA
Fall-05	ND	ND	ND	0.74	ND	2.2	2.2	220	0.3	2.2	NA
Win-06	0.23	ND	ND	0.67	ND	4.2	1.1	250	0.24	2	NA

24-PMW-3	1,1,1-TCA	1,1,2-TCA	1,1-DCA	1,1-DCE	1,2-DCA	Benzene	cis-1,2-DCE	PCE	TCE	Vinyl chloride	TPHd	TPHg	1,4-Dioxane
May-01	12.4	ND	5.92	5.93	ND	ND	14.4	751	16.2	ND	0.274	0.200	ND
Dec-02	8.6	ND	5.8	8.2	0.58	1.9	37	361	24.4	0.66	0.260	0.220	NA
Nov-03	5.3	ND	4.3	5.2	0.81	2.2	103	380	28.3	3.3	NA	NA	NA
Fall-04	0.89	ND	4.6	3.1	1.7	3.9	12	490	26	120	0.23	0.22	NA
Win-05	1	0.36	4.8	5.5	1.7	5.9	37	770	72	22	0.22	0.34	NA
Spr-05	0.89	0.39	4.8	3.3	1.3	3.5	28	380	41	65	NA	ND	NA
Sum-05	ND	ND	4	0.98	4.1	10	18	140	17	66	0.38	0.068	NA
Fall-05	0.21	ND	4	2.2	0.61	3.1	18	340	44	24	0.51	0.19	NA
Win-06	0.42	0.21	4.2	4.1	1	3.9	20	620	55	17	0.25	0.24	NA

24-PMW-22	1,1,2-TCA	1,1-DCE	cis-1,2-DCE	PCE	TCE	TPHg
Nov-03	ND	ND	4.0	8,940	23.8	NA
Fall-04	ND	ND	0.5	660	5.6	1.5
Win-05	0.5	0.85	7.7	15,000	65	5.6
Spr-05	0.55	0.67	8.7	17,000	ND	2.2
Sum-05	0.42	0.73	9.1	20,000	42	2.2
Fall-05	ND	ND	ND	23,000	49	2.4
Win-06	ND	0.85	9.6	28,000	69	2.6

24-PMW-13	PCE	TCE	cis-1,2-DCE	TPHd
Dec-02	1.1	0.51	ND	ND
Nov-03	0.74	ND	ND	ND
Fall-04	DRY	DRY	DRY	DRY
Win-05	1.2	0.61	ND	ND
Spr-05	2.5	0.69	0.21	ND
Sum-05	0.26	ND	ND	0.098
Fall-05	2.7	0.75	ND	ND
Win-06	2	0.81	0.21	ND



LEGEND

- 200 — CONTOUR LINE, 5-FOOT INTERVALS (FEET ABOVE MSL, NAVD 1988)
- FENCE
- PAVED ROAD OR STREET
- 1788 — BUILDING
- CONCRETE OR PAVED AREAS
- UNLINED DRAINAGE ROUTE
- SITE BOUNDARY
- 24-PMW-2 — SHALLOW GROUNDWATER MONITORING WELL
- 24-MW-2 — INTERMEDIATE GROUNDWATER MONITORING WELL
- 24-MW-3B — DEEP GROUNDWATER MONITORING WELL
- * — INSTALLED MICROPURGE PUMP
- a — THE SAMPLE RESULT WAS REJECTED THROUGH THE VALIDATION PROCESS
- NA — NOT ANALYZED
- ND — NOT DETECTED; RESULT IS LESS THAN THE METHOD DETECTION LIMIT
- DRY — WELL WAS DRY OR HAD INSUFFICIENT WATER FOR SAMPLING
- 5 — ESTIMATED EXTENT OF PCE IN µg/L
- 5 — ESTIMATED EXTENT OF TCE IN µg/L

NOTE(S): RESULTS FOR ALL COMPOUNDS EXCEPT TPHd AND TPHg ARE IN µg/L. TPHd AND TPHg RESULTS ARE IN mg/L.

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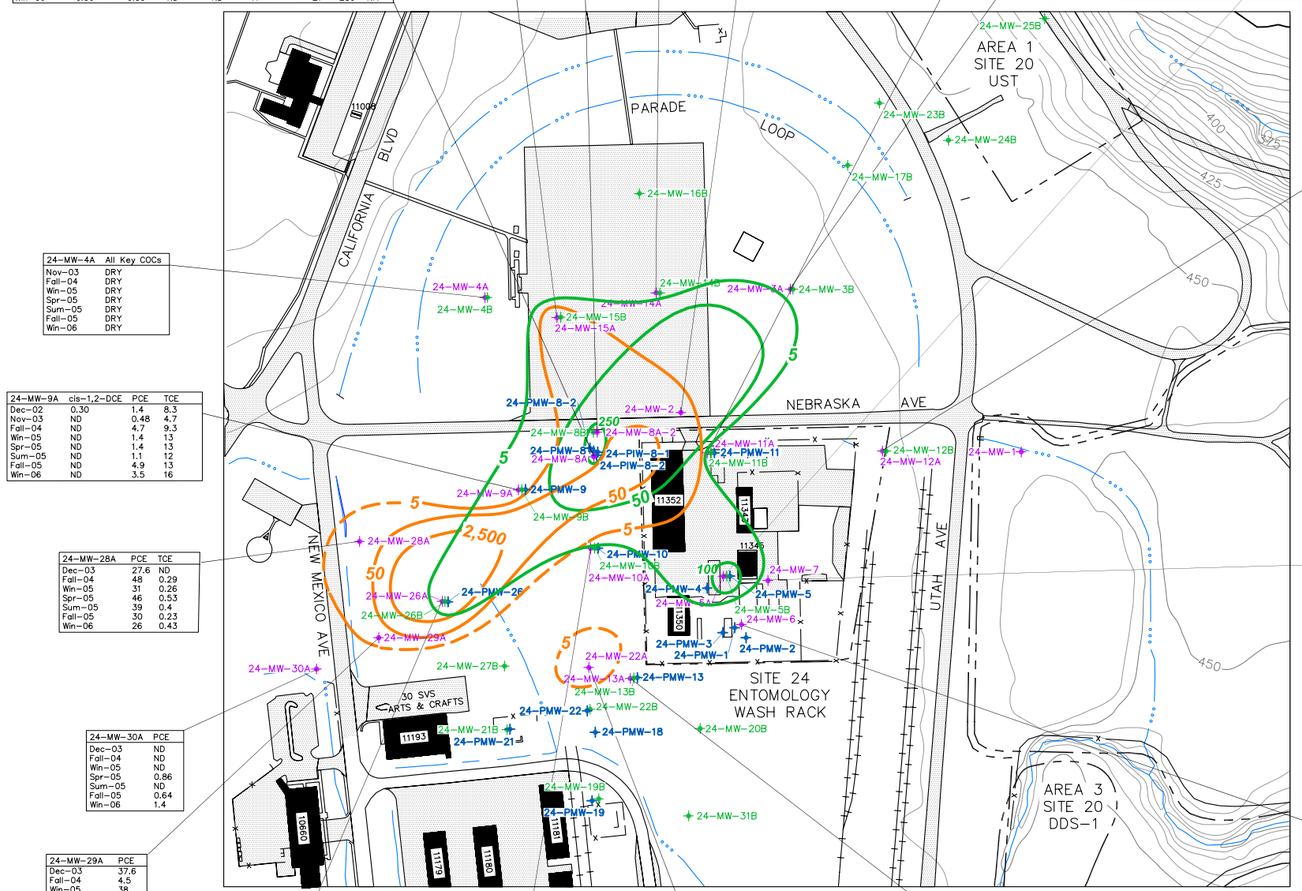
0 100' 200' 300'
SCALE

UNITED STATES AIR FORCE
VANDENBERG AIR FORCE BASE

SITE 24
HISTORICAL ANALYTICAL RESULTS OF KEY CONTAMINANTS OF CONCERN AT SHALLOW GROUNDWATER WELL LOCATIONS
MAY 2001 THROUGH WINTER 2006

TETRA TECH, INC.
4213 State Street, Suite 100
Santa Barbara, CA 93110-2847

TASK NO.	DATE	DRAWN BY	MADE FROM	DWG NO.	Figure
99105-18	6/6/06	PRICHARD	TAB21	5654	4A



24-MW-8A-2	1,1,1-TCA	1,1,2-TCA	1,1-DCE	cis-1,2-DCE	PCE	TCE	Vinyl chloride
Oct-03	ND	0.37	ND	94.1	27.3	397	ND
Nov-03	ND	ND	ND	108	47.3	452	ND
Jan-04	0.42	ND	ND	95.5	37.9	365	ND
Aug-04	ND	0.47	ND	124	34.1	688	ND
Dec-04	ND	ND	ND	127	29.5	349	ND
Fall-04	ND	0.64	0.26	110	47	900	ND
Win-05	ND	0.68	0.31	120	52	960	0.21
Spr-05	ND	0.48	ND	82	38	610	ND
Sum-05	ND	0.64	0.2	100	40	930	ND
Fall-05	ND	0.47	ND	86	27	500	ND
Win-06	ND	0.31	ND	55	25	280	ND

24-MW-14A	1,1,1-TCA	TCE
Dec-02	ND	ND
Nov-03	ND	ND
Fall-04	ND	1.4
Win-05	0.59	0.63
Spr-05	ND	2.4
Sum-05	ND	0.38
Fall-05	ND	0.24
Win-06	ND	ND

24-MW-11A	1,1-DCA	1,1-DCE	cis-1,2-DCE	PCE	TCE	TPHd	TPHg
Dec-02	ND	ND	ND	ND	ND	NA	NA
Nov-03	ND	ND	ND	ND	0.71	NA	NA
Fall-04	0.25	0.9	ND	1.6	0.98	ND	ND
Win-05	ND	0.4	1.2	62	20	0.11	0.044
Spr-05	ND	ND	ND	3.1	1.1	0.13	ND
Sum-05	ND	ND	ND	0.55	0.69	0.14	ND
Fall-05	ND	ND	ND	10	0.73	0.12	ND
Win-06	ND	ND	ND	1.9	0.8	0.1	NA

24-MW-2	cis-1,2-DCE	PCE	TCE	TPHd	TPHg	1,4-Dioxane
May-01	0.193	10.3	45.7	0.12	0.0314	ND
Dec-02	ND	8.1	50.7	NA	NA	NA
Nov-03	0.62	14.5	125	NA	NA	NA
Fall-04	1.2	19	150	ND	0.091	NA
Win-05	1.8	27	210	ND	0.12	NA
Spr-05	0.53	15	130	ND	ND	NA
Sum-05	0.49	12	97	ND	0.049	NA
Fall-05*	0.26	12	61	0.15	0.03	NA
Win-06	.27	13	67	ND	NA	NA

24-MW-15A	cis-1,2-DCE	PCE	TCE	TPHd
Dec-02	ND	ND	2.0	NA
Nov-03	ND	ND	ND	NA
Fall-04	ND	ND	ND	0.32
Win-05	ND	ND	ND	ND
Spr-05	ND	ND	1.1	ND
Sum-05	ND	ND	0.26	ND
Fall-05	ND	ND	ND	ND
Win-06	0.77	15	9.5	ND

24-MW-3A	cis-1,2-DCE	TCE
Dec-02	ND	ND
Nov-03	ND	ND
Fall-04	ND	ND
Win-05	0.3	6.5
Spr-05	ND	ND
Sum-05	ND	ND
Fall-05	ND	ND
Win-06	ND	ND

24-MW-8A	1,1,2-TCA	1,1-DCA	1,1-DCE	Benzene	cis-1,2-DCE	PCE	TCE	TPHg
Dec-02	1.9	0.5	1.6	ND	13.7	6.9	271	NA
Nov-03	ND	0.42	ND	ND	18.1	10.2	381	NA
Fall-04	0.28	0.43	0.22	ND	8.9	18	270	0.14
Win-05	0.38	0.5	0.47	0.25	14	14	410	0.14
Spr-05	0.35	0.47	0.24	ND	13	14	430	ND
Sum-05	ND	0.42	ND	ND	14	12	440	0.16
Fall-05	0.32	0.39	ND	ND	13	11	300	0.19
Win-06	0.36	0.39	ND	ND	17	27	280	NA

24-MW-5A	1,1,1-TCA	1,1,2-TCA	1,1-DCA	1,1-DCE	1,2-DCA	Benzene	cis-1,2-DCE	PCE	TCE	Vinyl chloride	TPHd	TPHg	1,4-Dioxane
May-01	195	ND	42.7	89.2	0.845	ND	2.67	3.67	164	ND	0.178	0.124	737
Dec-02	156	0.58	26.9	81	ND	ND	1.2	37.7	127	ND	0.011	0.150	NA
Nov-03	127	0.63	23.9	55.7	ND	ND	0.89	5.1	89.6	ND	NA	NA	NA
Fall-04	77	4.6	89	670	6.9	0.42	9.5	17	29	0.79	0.18	0.036	1,000
Win-05	65	0.82	24	73	0.53	ND	1.3	4.1	95	ND	ND	0.05	92
Spr-05	80	1	35	66	0.65	ND	2	3.6	190	ND	ND	ND	130
Sum-05	62	0.96	30	94	0.68	ND	1.7	5.8	140	ND	ND	0.075	110
Fall-05	65	0.84	27	67	0.53	0.27	1.6	4.8	120	ND	ND	0.056	95
Win-06	66	1	34	62	0.64	ND	2	4.2	180	ND	ND	NA	110

24-MW-12A	1,1,1-TCA	PCE	TCE	TPHd
Dec-02	ND	ND	ND	NA
Nov-03	ND	ND	ND	NA
Fall-04	0.29	ND	ND	0.33
Win-05	ND	6.8	0.25	0.15
Spr-05	ND	0.82	ND	0.3
Sum-05	ND	ND	0.26	0.22
Fall-05*	ND	ND	ND	0.21
Win-06	ND	ND	ND	.15

24-MW-4A	All Key COCs
Nov-03	DRY
Fall-04	DRY
Win-05	DRY
Spr-05	DRY
Sum-05	DRY
Fall-05	DRY
Win-06	DRY

24-MW-9A	cis-1,2-DCE	PCE	TCE
Dec-02	0.30	1.4	8.3
Nov-03	ND	0.48	4.7
Fall-04	ND	4.7	9.3
Win-05	ND	1.4	13
Spr-05	ND	1.4	13
Sum-05	ND	1.1	12
Fall-05	ND	4.9	13
Win-06	ND	3.5	16

24-MW-7	1,1-DCE	TCE	TPHd	1,4-Dioxane
May-01	0.63	4.0	0.168	ND
Dec-02	2.0	11.6	NA	NA
Nov-03	1.8	9.9	NA	NA
Fall-04	DRY	DRY	DRY	DRY
Win-05	DRY	DRY	DRY	DRY
Spr-05	DRY	DRY	DRY	DRY
Sum-05	DRY	DRY	DRY	DRY
Fall-05	DRY	DRY	DRY	DRY
Win-06	DRY	DRY	DRY	DRY

24-MW-28A	PCE	TCE
Dec-03	27.6	ND
Fall-04	48	0.29
Win-05	31	0.26
Spr-05	46	0.53
Sum-05	39	0.4
Fall-05	30	0.23
Win-06	26	0.43

24-MW-6	1,1,1-TCA	1,1-DCE	PCE	1,4-Dioxane
Nov-03	1.3	1.0	0.3	NA
Fall-04	DRY	DRY	DRY	DRY
Win-05	DRY	DRY	DRY	DRY
Spr-05	DRY	DRY	DRY	DRY
Sum-05	DRY	DRY	DRY	DRY
Fall-05	DRY	DRY	DRY	DRY
Win-06	DRY	DRY	DRY	DRY

24-MW-30A	PCE
Dec-03	ND
Fall-04	ND
Win-05	ND
Spr-05	0.86
Sum-05	ND
Fall-05	0.64
Win-06	1.4

24-MW-29A	PCE
Dec-03	37.6
Fall-04	4.5
Win-05	38
Spr-05	37
Sum-05	32
Fall-05	21
Win-06	19

24-MW-26A	1,1,2-TCA	cis-1,2-DCE	PCE	TCE
Dec-03	ND	13.2	1,990	17.9
Fall-04	0.37	12	2,500	17
Win-05	0.57	15	3,300	28
Spr-05	0.38	11	3,000	20
Sum-05	0.47	12	3,500	23
Fall-05	0.22	6.5	1,600	11
Win-06	0.3	9.8	2,900	16

24-MW-10A	PCE	TCE
Dec-02	0.42	ND
Nov-03	0.32	ND
Fall-04	1.6	0.24
Win-05	0.48	0.81
Spr-05	1.3	ND
Sum-05	0.85	4
Fall-05	3.5	ND
Win-06	1.7	ND

24-MW-22A	PCE	TCE
Nov-03	32.1	ND
Fall-04	24	0.64
Win-05	33	0.35
Spr-05	39	0.27
Sum-05	36	0.23
Fall-05	47	0.27
Win-06	48	0.3

24-MW-13A	PCE	TCE
Dec-02	60.1	1.3
Nov-03	DRY	DRY
Fall-04	DRY	DRY
Win-05	DRY	DRY
Spr-05	DRY	DRY
Sum-05	DRY	DRY
Fall-05	DRY	DRY
Win-06	DRY	DRY

LEGEND

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NOTE(S): RESULTS FOR ALL COMPOUNDS EXCEPT TPHd AND TPHg ARE IN µg/L. TPHd AND TPHg RESULTS ARE IN mg/L.

N

0 100' 200' 300'
SCALE

UNITED STATES AIR FORCE
VANDENBERG AIR FORCE BASE

SITE 24
HISTORICAL ANALYTICAL RESULTS OF KEY CONTAMINANTS OF CONCERN AT INTERMEDIATE GROUNDWATER WELL LOCATIONS
MAY 2001 THROUGH WINTER 2006

TETRA TECH, INC.
4213 State Street, Suite 100
Santa Barbara, CA 93110-2847

TASK NO.	DATE	DRAWN BY	MADE FROM	DWG NO.	Figure
99105-18	6/5/06	PRICHARD	TAB21	5655	4B

24-MW-15B	TCE	TPHd
Dec-02	ND	NA
Nov-03	ND	NA
Fall-04	ND	5.5
Win-05	1.2	0.68
Spr-05	ND	ND
Sum-05	0.59	ND
Fall-05*	ND	ND
Win-06	ND	ND

24-MW-14B	1,1,2-TCA	1,1-DCA	cis-1,2-DCE	PCE	TCE	TPHg
Dec-02	ND	ND	1.3	8.3	672	NA
Nov-03	ND	ND	2.5	13	908	NA
Fall-04	ND	ND	2.7	14	690	0.41
Win-05	0.67	ND	4	24	1,400	0.49
Spr-05	0.59	ND	2.6	14	910	ND
Sum-05	0.88	ND	3.3	18	1,000	0.4
Fall-05*	0.7	0.25	4.2	22	1,000	0.38
Win-06	0.54	ND	3.2	17	1,100	NA

24-MW-25B	PCE	TCE
Dec-02	ND	ND
Nov-03	ND	ND
Fall-04	ND	2.4
Win-05	ND	2
Spr-05	0.44	ND
Sum-05	0.54	7.4
Fall-05*	ND	ND
Win-06	ND	ND

24-MW-4B	All Key VOCs	TPHd
Dec-02	ND	NA
Nov-03	ND	NA
Fall-04	ND	0.61
Win-05	ND	0.2
Spr-05	ND	ND
Sum-05	ND	0.25
Fall-05*	ND	0.39
Win-06	ND	0.19

24-MW-23B	PCE	TCE	cis-1,2-DCE	1,1-DCE	1,1-DCA	TPHg
Nov-03	2.5	86.4	ND	ND	ND	NA
Fall-04	ND	1.8	ND	ND	ND	ND
Win-05	ND	2.2	ND	ND	ND	ND
Spr-05	7.2	100	0.64	0.26	0.35	ND
Sum-05	9.4	120	0.86	0.23	0.38	0.032
Fall-05*	12	140	1.1	0.28	0.43	0.065
Win-06	14	170	1.4	0.3	0.43	NA

24-MW-16B	PCE	TCE
Dec-02	1.1	1.3
Nov-03	ND	ND
Fall-04	ND	ND
Win-05	ND	ND
Spr-05	ND	ND
Sum-05	ND	ND
Fall-05	68	ND
Win-06	13	0.21

24-MW-8B	1,1,2-TCA	1,1-DCA	1,1-DCE	cis-1,2-DCE	PCE	TCE	TPHg
Dec-02	ND	0.88	.58	75.2	25.9	522	NA
Nov-03	ND	0.97	.76	62.4	42.4	773	NA
Fall-04	0.41	0.81	.53	66	33	620	0.28
Win-05	ND	1.1	ND	76	51	730	0.29
Spr-05	0.55	0.9	0.57	65	44	690	ND
Sum-05	0.55	0.9	0.6	59	40	660	0.27
Fall-05	0.46	1	0.66	61	43	640	0.28
Win-06	0.45	0.85	0.52	64	41	560	NA

24-MW-17B	cis-1,2-DCE	PCE	TCE	TPHg
Dec-02	0.67	1.4	82.1	NA
Nov-03	1.4	2.8	131	NA
Fall-04	1.5	4	130	0.067
Win-05	1.9	5.4	180	0.058
Spr-05	1.7	5.5	130	ND
Sum-05	1.2	4.4	110	0.045
Fall-05*	1.4	4.7	110	0.05
Win-06	1.2	5	110	NA

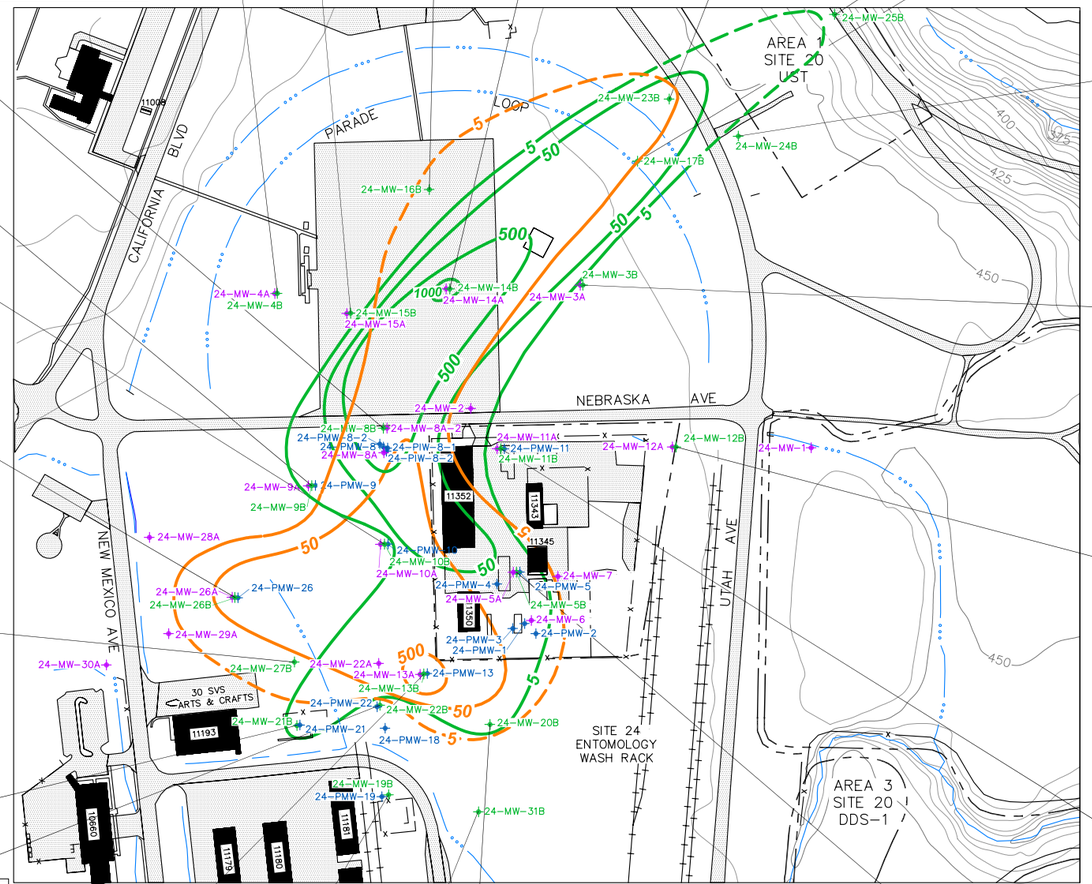
24-MW-9B	PCE	TCE
Dec-02	ND	2.2
Nov-03	0.32	8.4
Fall-04	0.6	2.2
Win-05	0.27	1.9
Spr-05	0.33	4.4
Sum-05	0.21	3.2
Fall-05	0.78	3.6
Win-06	0.73	10

24-MW-24B	PCE	TCE
Nov-03	ND	ND
Fall-04	ND	ND
Win-05	2.4	0.25
Spr-05	0.52	ND
Sum-05	0.22	ND
Fall-05*	ND	ND
Win-06	ND	ND

24-MW-10B	PCE	TCE	TPHg
Dec-02	45.0	0.50	NA
Nov-03	76.1	0.53	NA
Fall-04	52	0.64	0.025
Win-05	100	0.73	0.032
Spr-05	80	0.96	ND
Sum-05	82	1.3	0.032
Fall-05*	93	1.1	0.034
Win-06	93	1.2	NA

24-MW-3B	TCE	TPHd	1,4-Dioxane
May-01	2.23	0.043	ND
Dec-02	0.97	NA	NA
Nov-03	1.6	NA	NA
Fall-04	0.3	ND	NA
Win-05	8.8	ND	NA
Spr-05	3.6	ND	NA
Sum-05	1.9	ND	NA
Fall-05	1.8	ND	NA
Win-06	1.6	ND	NA

24-MW-26B	PCE	TCE
Dec-03	8.8	ND
Fall-04	33	0.22
Win-05	58	0.35
Spr-05	65	0.42
Sum-05	65	0.41
Fall-05	45	0.32
Win-06	72	0.51



24-MW-27B	PCE	TCE
Dec-03	72.2	0.78
Fall-04	3.1	ND
Win-05	86	1.3
Spr-05	83	1
Sum-05	66	1
Fall-05	43	0.48
Win-06	33	0.37

24-MW-12B	PCE	TPHd
Dec-02	ND	NA
Nov-03	ND	NA
Fall-04	ND	0.66
Win-05	0.42	0.47
Spr-05	ND	0.87
Sum-05	ND	0.49
Fall-05*	ND	0.48
Win-06	ND	0.36

24-MW-21B	cis-1,2-DCE	PCE	TCE	TPHd
Dec-03	1.1	1.3	11.1	NA
Fall-04	12	0.55	7.5	NA
Win-05	0.74	2.4	4.1	ND
Spr-05	13	ND	10	ND
Sum-05	15	1.9	9.7	0.15
Fall-05	22	ND	3	0.16
Win-06	12	ND	5.6	ND

24-MW-11B	PCE	TCE
Dec-02	0.32	0.36
Nov-03	0.31	ND
Fall-04	0.29	0.37
Win-05	0.81	0.72
Spr-05	0.35	0.45
Sum-05	ND	0.34
Fall-05	0.83	0.34
Win-06	0.81	0.45

24-MW-22B	cis-1,2-DCE	PCE	TCE	TPHd
Nov-03	ND	7.7	2.6	NA
Fall-04	ND	30	1.1	4
Win-05	ND	8.7	0.35	1.9
Spr-05	ND	4.4	0.94	0.33
Sum-05	2.1	5.6	1.4	1
Fall-05	2.7	5.2	2.3	0.68
Win-06	8.4	4.5	4	0.4

24-MW-31B	TCE
Dec-03	2.5
Fall-04	DRY
Win-05	DRY
Spr-05	DRY
Sum-05	DRY
Fall-05	DRY
Win-06	DRY

24-MW-5B	1,1,1-TCA	1,1,2-TCA	1,1-DCA	1,1-DCE	1,2-DCA	Benzene	cis-1,2-DCE	PCE	TCE	Vinyl chloride	TPHd	TPHg	1,4-Dioxane
May-01	101	2.64	68.3	529	8.57	ND	21.1	8.22	20.2	ND	0.118	0.069	296
Dec-02	136	5	78.5	771	6.5	0.51	14.4	59.1	32.8	ND	NA	NA	NA
Nov-03	136	4.2	82	820	8.9	0.47	12.7	18.3	35.9	ND	NA	NA	NA
Win-05	110	6	110	880	9.3	0.87	13	19	39	0.42	0.14	0.046	1,700
Spr-05	95	5.4	91	580	8.8	0.66	12	18	38	0.29	0.23	ND	1,100
Sum-05	95	5.1	100	590	8.8	0.48	14	16	31	0.8	0.1	0.027	1,300[a]
Fall-05	83	3.8	93	540	7.2	0.45	21	12	28	3.6	0.18	0.023	790
Win-06	66	6.2	92	520	9.4	0.51	18	25	42	2.8	0.11	0.064	980

24-MW-13B	cis-1,2-DCE	PCE	TCE	TPHg
Dec-02	2.5	98.1	10.9	NA
Nov-03	0.64	306	4.7	NA
Fall-04	0.82	370	8.2	0.19
Win-05	0.25	470	6.6	0.18
Spr-05	0.31	460	6	0.21
Sum-05	0.24	620	5.1	0.21
Fall-05	0.31	590	6.1	0.21
Win-06	0.33	660	7.4	NA

24-MW-19B	cis-1,2-DCE	PCE	TCE
Dec-03	8.7	ND	3.2
Fall-04	6	ND	2.5
Win-05	9.4	ND	4.2
Spr-05	8.6	ND	4.1
Sum-05	7.1	ND	2.9
Fall-05*	10	ND	3.3
Win-06	8.9	0.91	4.1

24-MW-20B	cis-1,2-DCE	PCE	TCE	TPHd	TPHg
Dec-03	ND	16.7	0.98	NA	NA
Fall-04	ND	34	2.2	NA	NA
Win-05	ND	50	4.4	0.13	0.029
Spr-05	ND	69	3.3	0.12	0.029
Sum-05	0.46	100	4.6	ND	0.048
Fall-05	7.3	20	4.5	0.18	ND
Win-06	1.1	13	6.3	ND	NA

LEGEND

- 200 — CONTOUR LINE, 5-FOOT INTERVALS (FEET ABOVE MSL, NAVD 1988)
- x — FENCE
- PAVED ROAD OR STREET
- 1788 — BUILDING
- CONCRETE OR PAVED AREAS
- UNLINED DRAINAGE ROUTE
- SITE BOUNDARY
- 24-PMW-2 — SHALLOW GROUNDWATER MONITORING WELL
- 24-MW-2 — INTERMEDIATE GROUNDWATER MONITORING WELL
- 24-MW-3B — DEEP GROUNDWATER MONITORING WELL
- * — INSTALLED MICROPURGE PUMP
- a — THE DATA WERE REJECTED THROUGH THE VALIDATION PROCESS
- NA — NOT ANALYZED
- ND — NOT DETECTED; RESULT IS LESS THAN THE METHOD DETECTION LIMIT
- DRY — WELL WAS DRY OR HAD INSUFFICIENT WATER FOR SAMPLING
- 5 — ESTIMATED EXTENT OF PCE IN µg/L
- 5 — ESTIMATED EXTENT OF TCE IN µg/L

NOTE(S): RESULTS FOR ALL COMPOUNDS EXCEPT TPHd AND TPHg ARE IN µg/L. TPHd AND TPHg RESULTS ARE IN mg/L.

N

0 100' 200' 300'
SCALE

UNITED STATES AIR FORCE
VANDENBERG AIR FORCE BASE

SITE 24
HISTORICAL ANALYTICAL RESULTS OF KEY CONTAMINANTS OF CONCERN AT DEEP GROUNDWATER WELL LOCATIONS
MAY 2001 THROUGH WINTER 2006

TETRA TECH, INC.
4213 State Street, Suite 100
Santa Barbara, CA 93110-2847

TASK NO.	DATE	DRAWN BY	MADE FROM	DWG NO.	Figure
99105-18	6/6/06	PRICHARD	TAB21	5656	4C

Table 1
Groundwater Elevations
Site 24 (Entomology Wash Rack)
Vandenberg AFB, California

Monitoring Well	Top of Casing Elevation (feet above msl)	Date Measured	Groundwater Depth (feet below TOC)	Groundwater Elevation (feet above msl)			
		Winter 2006	Winter 2006	Winter 2006	Fall 2005	Summer 2005	Spring 2005
Shallow Zone Wells							
24-PMW-1	459.69	01-Feb-06	9.68	450.01	449.87	450.15	450.11
24-PMW-2	459.18	01-Feb-06	8.19	450.99	451.02	451.82	451.72
24-PMW-3	459.75	01-Feb-06	10.18	449.57	449.73	450.14	450.04
24-PMW-4	458.43	01-Feb-06	6.98	451.45	451.73	452.73	453.15
24-PMW-5	458.28	01-Feb-06	7.35	450.93	451.29	451.86	452.25
24-PMW-8	459.42	01-Feb-06	11.49	447.93	448.39	448.94	449.65
24-PMW-8-2	459.45	01-Feb-06	11.66	447.79	448.12	448.90	449.56
24-PIW-8-1	459.43	01-Feb-06	11.45	447.98	447.75	449.07	449.83
24-PIW-8-2	459.11	01-Feb-06	11.28	447.83	448.07	449.16	449.68
24-PMW-9	459.86	01-Feb-06	17.21	442.65	444.36	447.02	446.94
24-PMW-10	458.87	01-Feb-06	8.77	450.10	449.67	451.23	453.30
24-PMW-11	458.04	01-Feb-06	6.86	451.18	450.73	451.23	451.70
24-PMW-13	459.83	01-Feb-06	9.35	450.48	452.26	453.03	454.01
24-PMW-18	459.31	01-Feb-06	11.10	448.21	447.72	448.90	449.50
24-PMW-19	460.27	01-Feb-06	6.90	453.37	453.32	454.54	455.66
24-PMW-21	460.70	01-Feb-06	10.26	450.44	451.14	452.50	447.42
24-PMW-22	459.29	01-Feb-06	14.28	445.01	445.10	445.90	444.18
24-PMW-26	460.72	01-Feb-06	11.78	448.94	450.36	450.38	449.41
Intermediate Zone Wells							
24-MW-2	459.57	01-Feb-06	35.46	424.11	424.30	424.16	423.84
24-MW-3A	458.15	01-Feb-06	37.25	420.90	420.91	421.03	420.54
24-MW-4A	460.40	01-Feb-06	DRY	DRY	DRY	DRY	DRY
24-MW-5A	457.99	01-Feb-06	38.16	419.83	419.78	419.80	419.78
24-MW-6[a]	459.39	01-Feb-06	DRY	DRY	DRY	DRY	DRY
24-MW-7	459.46	01-Feb-06	DRY	DRY	DRY	DRY	DRY
24-MW-8A	459.23	01-Feb-06	29.71	429.52	429.27	429.57	429.28
24-MW-8A-2	459.23	01-Feb-06	31.42	427.81	428.01	428.18	427.89
24-MW-9A	459.99	01-Feb-06	24.00	435.99	438.99	440.44	437.88
24-MW-10A	459.01	01-Feb-06	25.95	433.06	431.68	432.31	431.66
24-MW-11A	457.98	01-Feb-06	24.66	433.32	429.38	433.12	428.12
24-MW-12A	457.43	01-Feb-06	19.53	437.90	438.85	439.83	437.85
24-MW-13A	459.70	01-Feb-06	DRY	DRY	DRY	DRY	DRY
24-MW-14A	458.42	01-Feb-06	37.31	421.11	421.04	421.17	421.19
24-MW-15A	459.21	01-Feb-06	36.64	422.57	422.55	422.46	422.28
24-MW-22A	459.50	01-Feb-06	22.05	437.45	437.82	437.96	437.15
24-MW-26A	460.42	01-Feb-06	10.87	449.55	449.68	449.92	449.24
24-MW-28A	461.23	01-Feb-06	11.57	449.66	450.40	450.60	450.31
24-MW-29A	460.89	01-Feb-06	11.45	449.44	450.22	450.69	450.20
24-MW-30A	459.59	01-Feb-06	8.93	450.66	450.98	451.40	451.29

Table 1
Groundwater Elevations
Site 24 (Entomology Wash Rack)
Vandenberg AFB, California

Monitoring Well	Top of Casing Elevation (feet above msl)	Date Measured	Groundwater Depth (feet below TOC)	Groundwater Elevation (feet above msl)			
		Winter 2006	Winter 2006	Winter 2006	Fall 2005	Summer 2005	Spring 2005
Deep Zone Wells							
24-MW-3B	458.07	01-Feb-06	37.89	420.18	420.17	420.33	419.96
24-MW-4B	460.40	01-Feb-06	65.58	394.82	394.75	394.72	394.63
24-MW-5B	458.35	01-Feb-06	65.04	393.31	393.24	393.24	393.15
24-MW-8B	459.24	01-Feb-06	33.54	425.70	425.66	425.75	425.41
24-MW-9B	459.95	01-Feb-06	19.72	440.23	440.18	439.81	438.95
24-MW-10B	458.88	01-Feb-06	23.82	435.06	435.01	434.95	434.39
24-MW-11B	457.86	01-Feb-06	34.61	423.25	423.55	423.35	423.03
24-MW-12B	457.33	01-Feb-06	21.00	436.33	437.11	437.87	437.07
24-MW-13B	459.70	01-Feb-06	64.45	395.25	395.09	395.02	394.87
24-MW-14B	458.36	01-Feb-06	37.95	420.41	420.36	420.40	420.08
24-MW-15B	459.19	10-Mar-06	36.92	422.27	421.93	422.09	421.69
24-MW-16B	458.48	01-Feb-06	38.81	419.67	420.67	419.69	419.27
24-MW-17B	456.11	01-Feb-06	38.33	417.78	417.77	417.96	417.62
24-MW-19B	460.12	01-Feb-06	66.43	393.69	393.61	393.62	393.57
24-MW-20B	459.55	01-Feb-06	65.32	394.23	394.20	394.15	394.07
24-MW-21B	460.22	01-Feb-06	66.63	393.59	393.50	393.57	393.49
24-MW-22B	459.33	01-Feb-06	65.65	393.68	391.63	393.62	393.51
24-MW-23B	455.09	01-Feb-06	37.84	417.25	417.24	417.48	417.13
24-MW-24B	452.59	01-Feb-06	35.49	417.10	418.07	417.31	417.00
24-MW-25B	427.58	01-Feb-06	23.35	404.23	403.78	403.88	404.60
24-MW-26B	460.61	10-Mar-06	11.89	448.72	448.86	449.04	448.34
24-MW-27B	460.46	01-Feb-06	12.20	448.26	448.70	448.96	448.35
24-MW-31B	459.60	01-Feb-06	65.79	393.81	393.80	393.79	393.71

Definition(s):

msl - mean sea level
TOC - top of casing

Note(s):

a - TOC surveyed prior to final well box construction. Data accurate to within 1 to 3 inches. This well will require a re-survey for accuracy to 0.01 inch.

Table 2
Water Quality Parameters
Fall 2005
IRP Site 24 (Entomology Wash Rack)
Vandenberg AFB, California

Shallow Zone Sampling Location	**24-PMW-1**	**24-PMW-2**	**24-PMW-3**	**24-PMW-4**	**24-PMW-5**	**24-PMW-8**	**24-PMW-8-2**	**24-PIW-8-1**
Sample ID	**V24PMW1**	**V24PMW2**	**V24PMW3**	**V24PMW4**	**V24PMW5**	**V24PMW8**	**V24PMW82**	**V24PIW81**
Collection Date	**07-Mar-06**	**06-Mar-06**	**07-Mar-06**	**07-Mar-06**	**07-Mar-06**	**08-Mar-06**	**08-Mar-06**	**08-Mar-06**
Field Parameters[1]:								
Temperature (° Celsius)	17.81	18.42	17.81	18.46	17.83	19.62	18.64	19.50
Conductivity (µmhos/cm)	804	792	806	853	760	3,726	3,409	6,832
pH	5.81	5.75	6.52	6.33	6.44	3.85	5.06	3.46
Turbidity (NTUs)	5.64	30.1	6.26	7.89	10.2	21.5	31.9	>200

Shallow Zone Sampling Location	**24-PIW-8-2**	**24-PMW-9**	**24-PMW-10**	**24-PMW-11**	**24-PMW-13**	**24-PMW-18**	**24-PMW-19**	**24-PMW-21**
Sample ID	**V24PIW82**	**V24PMW9**	**V24PMW10**	**V24PMW11**	**V24PMW13**	**V24PMW18**	**V24PMW19**	**V24PMW21**
Collection Date	**08-Mar-06**	**08-Mar-06**	**08-Mar-06**	**10-Mar-06**	**07-Mar-06**	**09-Mar-06**	**10-Mar-06**	**09-Mar-06**
Field Parameters[1]:								
Temperature (° Celsius)	19.73	19.11	17.07	16.15	17.77	17.58	17.17	17.98
Conductivity (µmhos/cm)	7,481	347	595	705	337	560	1,138	990
pH	3.50	6.72	6.88	6.33	6.76	6.93	6.99	6.28
Turbidity (NTUs)	>200	175	23.9	14.2	>200	63.4	30.2	13.9

Shallow Zone Sampling Location	**24-PMW-22**	**24-PMW-26**
Sample ID	**V24PMW22**	**V24PMW26**
Collection Date	**07-Mar-06**	**13-Mar-06**
Field Parameters[1]:		
Temperature (° Celsius)	18.07	18.27
Conductivity (µmhos/cm)	876	2,264
pH	6.99	6.56
Turbidity (NTUs)	11.4	14.3

Table 2
Water Quality Parameters
Fall 2005
IRP Site 24 (Entomology Wash Rack)
Vandenberg AFB, California

Intermediate Zone Sampling Location	**24-MW-2**	**24-MW-3A**	**24-MW-5A**	**24-MW-8A**	**24-MW-8A-2**	**24-MW-9A**	**24-MW-10A**	**24-MW-11A**
Sample ID	**V24MW2**	**V24MW3A**	**V24MW5A**	**V24MW8A**	**V24MW8A2**	**V24MW9A**	**V24MW10A**	**V24MW11A**
Collection Date	**06-Mar-06**	**08-Mar-06**	**07-Mar-06**	**08-Mar-06**	**08-Mar-06**	**07-Mar-06**	**14-Mar-06**	**09-Mar-06**
Field Parameters[1]:								
Temperature (° Celsius)	14.35	20.75	NM[2]	20.01	18.01	18.46	18.71	18.93
Conductivity (µmhos/cm)	860	1,720	NM[2]	791	6.88	573	1,088	1,020
pH	6.16	6.49	NM[2]	5.98	6.47	6.26	6.14	6.16
Turbidity (NTUs)	0.43	1.42	NM[2]	6.17	16.5	28	46.2	9.65

Intermediate Zone Sampling Location	**24-MW-12A**	**24-MW-14A**	**24-MW-15A**	**24-MW-22A**	**24-MW-26A**	**24-MW-28A**	**24-MW-29A**	**24-MW-30A**
Sample ID	**V24MW12A**	**V24MW14A**	**V24MW15A**	**V24MW22A**	**V24MW26A**	**V24MW28A**	**V24MW29A**	**V24MW30A**
Collection Date	**06-Mar-06**	**09-Mar-06**	**09-Mar-06**	**07-Mar-06**	**13-Mar-06**	**14-Mar-06**	**14-Mar-06**	**13-Mar-06**
Field Parameters[1]:								
Temperature (° Celsius)	17.75	19.85	20.35	16.73	19.26	20.34	19.95	19.51
Conductivity (µmhos/cm)	1,590	1085	1,587	1,193	1,533	2,947	1,622	2,236
pH	6.41	6.07	6.31	6.11	6.00	6.26	5.83	6.07
Turbidity (NTUs)	3.21	20.0	151	9.88	23.9	27.0	52.0	39.1

Deep Zone Sampling Location	**24-MW-3B**	**24-MW-4B**	**24-MW-5B**	**24-MW-8B**	**24-MW-9B**	**24-MW-10B**	**24-MW-11B**	**24-MW-12B**
Sample ID	**V24MW3B**	**V24MW4BM**	**V24MW5B**	**V24MW8B**	**V24MW9B**	**V24MW10B**	**V24MW11B**	**V24MW12B**
Collection Date	**07-Mar-06**	**10-Mar-06**	**07-Mar-06**	**08-Mar-06**	**07-Mar-06**	**06-Mar-06**	**09-Mar-06**	**03-Mar-06**
Field Parameters[1]:								
Temperature (° Celsius)	18.44	17.41	20.21	20.50	18.71	14.33	19.63	18.18
Conductivity (µmhos/cm)	1,266	2,137	854	762	840	1,286	973	1,205
pH	6.16	5.53	5.61	6.24	5.93	5.92	6.56	6.19
Turbidity (NTUs)	3.46	40.4	1.81	7.6	2.4	1.15	51.2	2.85

Table 2
Water Quality Parameters
Fall 2005
IRP Site 24 (Entomology Wash Rack)
Vandenberg AFB, California

Deep Zone Sampling Location	**24-MW-13B**	**24-MW-14B**	**24-MW-15B**	**24-MW-16B**	**24-MW-17B**	**24-MW-19B**	**24-MW-20B**	**24-MW-21B**
Sample ID	**V24MW13B**	**V24MW14B**	**V24MW15B**	**V24MW16B**	**V24MW17B**	**V24MW19B**	**V24MW20B**	**V24MW21B**
Collection Date	**07-Mar-06**	**10-Mar-06**	**10-Mar-06**	**09-Mar-06**	**10-Mar-06**	**10-Mar-06**	**09-Feb-06**	**09-Mar-06**
Field Parameters[1]:								
Temperature (° Celsius)	18.74	19.92	19.83	21.58	18.24	18.20	NM[2]	17.83
Conductivity (µmhos/cm)	782	1,412	2,242	953	1,173	1,507	NM[2]	1,014
pH	6.70	5.96	5.71	5.94	5.79	6.35	NM[2]	6.45
Turbidity (NTUs)	187	1.53	3.64	1.76	1.59	2.75	NM[2]	11.4

Deep Zone Sampling Location	**24-MW-22B**	**24-MW-23B**	**24-MW-24B**	**24-MW-25B**	**24-MW-26B**	**24-MW-27B**
Sample ID	**V24MW22B**	**V24MW23B**	**V24MW24B**	**V24MW25B**	**V24MW26B**	**V24MW27B**
Collection Date	**07-Mar-06**	**10-Mar-06**	**10-Mar-06**	**10-Mar-06**	**13-Mar-06**	**14-Mar-06**
Field Parameters[1]:						
Temperature (° Celsius)	18.66	17.42	17.74	15.86	19.20	19.38
Conductivity (µmhos/cm)	1,271	858	2,212	1,588	1,164	1,362
pH	6.22	6.02	5.75	5.71	5.84	5.90
Turbidity (NTUs)	>200	2.08	1.21	0.67	0.82	2.12

Definition(s):

µmhos/cm - micromhos per centimeter
NM - not measured
NTU - nephelometric turbidity unit

Note(s):

1 - Field parameters measured immediately prior to sampling. Field parameters for well 24-PMW-9 and 24-MW-15A were measured at time of sampling because these wells were purged dry prior to the first reading.
2 - Water quality parameters were not measured due to insufficient water in the well.

Table 3
Metals in Groundwater
Winter 2006
EPA Methods SW6010B and SW7470A (µg/L)
IRP Site 24 (Entomology Wash Rack)
Vandenberg AFB, California

Sample Location					Shallow Zone Wells	24-PMW-1	24-PMW-1	24-PMW-2	24-PMW-3	24-PMW-4	24-PMW-5	24-PMW-8
Sample ID						V24PMW1F	V99W630F (D)	V24PMW2F	V24PMW3F	V24PMW4F	V24PMW5F	V24PMW8F
Collection Date						07-Mar-06	07-Mar-06	06-Mar-06	07-Mar-06	07-Mar-06	07-Mar-06	08-Mar-06
Dissolved Metals	MDL[1]	PQL[1]	Primary MCL	BTV								
Aluminum	15	60	1,000	1,200		60 U g	60 U g	74.4 J q	60 U g	60 U g	60 U g	71,500 g
Antimony[2]	40	100	6	10		40 U g	40 U g	40 U g	40 U g	40 U g	40 U g	40 U g
Arsenic	4	10	10	7		29.7 g	31.1 g	9.23 J q	5.68 J q	5 U g	5 U g	266 g
Cadmium	1	5	5	5		2.59 J q	2 U g	2 U g	2 U g	2 U g	2 U g	2 U g
Selenium[2]	5	10	50	3		6.5 J q	6.43 J q	14.8 B a	5 U g	8.81 J q	8.88 J q	31.6 g
Thallium[2]	5	10	2	1		6.13 BJ a,q	5 U g	5 U g	5 U g	5 U g	5 U g	5 U g

Sample Location					Shallow Zone Wells	24-PMW-10	24-PMW-11	24-PMW-13	24-PMW-18	24-PMW-19	24-PMW-21	24-PMW-22
Sample ID						V24PMW10F	V24PMW11F	V24PMW13F	V24PMW18F	V24PMW19F	V24PMW21F	V24PMW22F
Collection Date						08-Mar-06	10-Mar-06	07-Mar-06	09-Mar-06	10-Mar-06	09-Mar-06	07-Mar-06
Dissolved Metals	MDL[1]	PQL[1]	Primary MCL	BTV								
Aluminum	15	60	1,000	1,200		69.3 J q	60 U g	4,470 g	1,030 g	750 g	60 U g	84.9 J q
Antimony[2]	40	100	6	10		40 U g	40 U g	40 U g	40 U g	40 U g	40 U g	40 U g
Arsenic	4	10	10	7		5 U g	5 U g	6.08 J q	13 g	8.19 J q	5 U g	5.11 J q
Cadmium	1	5	5	5		2 U g	2 U g	2 U g	2 U g	2 U g	2 U g	2 U g
Selenium[2]	5	10	50	3		7.29 J q	5.87 J q	5 U g	5 U g	5 U g	5 U g	5 U g
Thallium[2]	5	10	2	1		5 U g	5 U g	5 U g	5 U g	5 U g	5 U g	6.35 BJ a,q

Table 3
Metals in Groundwater
Winter 2006
EPA Methods SW6010B and SW7470A (µg/L)
IRP Site 24 (Entomology Wash Rack)
Vandenberg AFB, California

Sample Location					Intermediate Zone Wells	24-MW-2	24-MW-3A	24-MW-5A	24-MW-8A	24-MW-10A	24-MW-11A	24-MW-12A
Sample ID						V24MW2F	V24MW3AF	V24MW5AF	V24MW8AF	V24MW10AF	V24MW11AF	V24MW12AF
Collection Date						06-Mar-06	08-Mar-06	07-Mar-06	08-Mar-06	14-Mar-06	09-Mar-06	06-Mar-06
Dissolved Metals	**MDL[1]**	**PQL[1]**	**Primary MCL**	**BTV**								
Aluminum	15	60	1,000	1,200		60 U g	60 U g	60 U g	60 U g	60 U g	60 U g	125 J q
Antimony[2]	40	100	6	10		40 U g	40 U g	40 U g	40 U g	40 U g	40 U g	40 U g
Arsenic	4	10	10	7		5 U g	5 U g	5 U g	5 U g	5 U g	5 U g	5 U g
Cadmium	1	5	5	5		2 U g	2 U g	2 U g	2 U g	2 U g	2 U g	2 U g
Selenium[2]	5	10	50	3		5 BJ a,q	7.92 J q	7.77 J q	6.69 J q	12.4 g	5 U g	5 U g
Thallium[2]	5	10	2	1		5.64 J q	5 U g	5 U g	5.6 BJ a,q	5 U g	5 U g	5 U g

Sample Location					Intermediate Zone Wells	24-MW-14A	24-MW-15A	24-MW-22A
Sample ID						V24MW14AF	V24MW15AF	V24MW22AF
Collection Date						09-Mar-06	09-Mar-06	07-Mar-06
Dissolved Metals	**MDL[1]**	**PQL[1]**	**Primary MCL**	**BTV**				
Aluminum	15	60	1,000	1,200		60 U g	60 U g	174 J q
Antimony[2]	40	100	6	10		40 U g	40 U g	40 U g
Arsenic	4	10	10	7		5 U g	5 U g	5.02 J q
Cadmium	1	5	5	5		2 U g	2 U g	2 U g
Selenium[2]	5	10	50	3		5 U g	5 U g	19.8 g
Thallium[2]	5	10	2	1		5 U g	5 U g	5 U g

Table 3
Metals in Groundwater
Winter 2006
EPA Methods SW6010B and SW7470A (µg/L)
IRP Site 24 (Entomology Wash Rack)
Vandenberg AFB, California

Sample Location					Deep Zone Wells	24-MW-3B	24-MW-3B	24-MW-4B	24-MW-5B	24-MW-8B	24-MW-10B	24-MW-10B
Sample ID						V24MW3BF	V99W631F (D)	V24MW4BF	V24MW5BF	V24MW8BF	V24MW10BF	V99W627 (D)
Collection Date						07-Mar-06	07-Mar-06	10-Mar-06	07-Mar-06	08-Mar-06	06-Mar-06	06-Mar-06
Dissolved Metals	**MDL[1]**	**PQL[1]**	**Primary MCL**	**BTV**								
Aluminum	15	60	1,000	1,200		60 U g	60 U g	145 J q	60 U g	60 U g	60 U g	60 U g
Antimony[2]	40	100	6	10		40 U g	40 U g	40 U g	40 U g	40 U g	40 U g	40 U g
Arsenic	4	10	10	7		5 U g	5 U g	40.5 g	7.08 J q	5 U g	5 U g	5 U g
Cadmium	1	5	5	5		2 U g	2 U g	2 U g	2.91 J q	2 U g	2 U g	2 U g
Selenium[2]	5	10	50	3		9.52 J q	10.1 g	5 U g	20.1 g	5.59 J q	15.1 B a	16.6 B a
Thallium[2]	5	10	2	1		5 U g	5 U g	5 U g	5 U g	5 U g	5.67 J q	6.2 J q

Sample Location					Deep Zone Wells	24-MW-11B	24-MW-12B	24-MW-13B	24-MW-14B	24-MW-14B	24-MW-15B	24-MW-16B
Sample ID						V24MW11BF	V24MW12BF	V24MW13BF	V24MW14BF	V99W633(D)	V24MW15BF	V24MW16BF
Collection Date						09-Mar-06	06-Mar-06	07-Mar-06	10-Mar-06	10-Mar-06	10-Mar-06	09-Mar-06
Dissolved Metals	**MDL[1]**	**PQL[1]**	**Primary MCL**	**BTV**								
Aluminum	15	60	1,000	1,200		60 U g	81 J q	60 U g	60 U g	60 U g	60 U g	60 U g
Antimony[2]	40	100	6	10		40 U g	40 U g	40 U g	40 U g	40 U g	40 U g	40 U g
Arsenic	4	10	10	7		5.68 J q	5 U g	5 U g	5 U g	5 U g	5 U g	5 U g
Cadmium	1	5	5	5		2 U g	2 U g	2 U g	2 U g	2 U g	2 U g	2 U g
Selenium[2]	5	10	50	3		5 U g	5 U g	10.5 g	7.46 J q	9.25 J q	10.6 g	5 U g
Thallium[2]	5	10	2	1		5 U g	5 U g	6.06 BJ a,q	5 U g	5 U g	7.17 BJ a,q	5 U g

Table 3
Metals in Groundwater
Winter 2006
EPA Methods SW6010B and SW7470A (µg/L)
IRP Site 24 (Entomology Wash Rack)
Vandenberg AFB, California

Sample Location					Deep Zone Wells	24-MW-17B	24-MW-19B	24-MW-19B	24-MW-20B	24-MW-21B	24-MW-22B	24-MW-23B
Sample ID						V24MW17BF	V24MW19BF	V99W634F(D)	V24MW20BF	V24MW21BF	V24MW22BF	V24MW23BF
Collection Date						10-Mar-06	10-Mar-06	10-Mar-06	09-Mar-06	09-Mar-06	07-Mar-06	10-Mar-06
Dissolved Metals	MDL[1]	PQL[1]	Primary MCL	BTV								
Aluminum	15	60	1,000	1,200		60 U g	60 U g	60 U g	60 U g	60 U g	60 U g	60 U g
Antimony[2]	40	100	6	10		40 U g	40 U g	40 U g	40 U g	40 U g	40 U g	40 U g
Arsenic	4	10	10	7		5 U g	17.1 J f	10.9 J f	7.43 J q	5 U g	5.4 J q	5 U g
Cadmium	1	5	5	5		2 U g	2 U g	2 U g	2 U g	2 U g	2 U g	2 U g
Selenium[2]	5	10	50	3		11.3 g	5 U g	5 U g	5 U g	5 U g	5 U g	6.49 J q
Thallium[2]	5	10	2	1		5 U g	6.2 BJ a,q	5 U g	5 U g	5 U g	5 U g	5 U g

Sample Location					Deep Zone Wells	24-MW-24B
Sample ID						V24MW24BF
Collection Date						10-Mar-06
Dissolved Metals	MDL[1]	PQL[1]	Primary MCL	BTV		
Aluminum	15	60	1,000	1,200		60 U g
Antimony[2]	40	100	6	10		40 U g
Arsenic	4	10	10	7		5 U g
Cadmium	1	5	5	5		2 U g
Selenium[2]	5	10	50	3		10.1 g
Thallium[2]	5	10	2	1		5 U g

Table 3
Metals in Groundwater
Winter 2006
EPA Methods SW6010B and SW7470A (µg/L)
IRP Site 24 (Entomology Wash Rack)
Vandenberg AFB, California

Data Validity Qualifier(s):

- B - The sample result is less than 5 times (10 times for common organic laboratory contaminants) the blank contamination. The result is considered not to have originated from the environmental sample, because cross-contamination is suspected.
- J - The analyte was positively identified and the result is usable; however, the analyte concentration is an estimated value.
- U - The analyte was not detected at or above the MDL.

Data Validity Comment(s):

- a - The analyte was found in the method blank.
- f - The duplicate/replicate sample's relative percent difference was outside the control limit.
- g - The data met prescribed criteria as detailed in the QAPP.
- q - The analyte detection was below the PQL.

Definition(s):

- BTV - background threshold value
- (D) - duplicate sample
- MCL - maximum contaminant level
- MDL - method detection limit
- µg/L - micrograms per liter
- N/A - not applicable
- PQL - practical quantitation limit
- QAPP - Quality Assurance Project Plan

Note(s):

Bold type indicates results that were above the MCL.
Shading indicates results that were above the 95th percentile BTV.

- 1 - Values from QAPP Addendum (Tetra Tech 2004).
- 2 - The BTV was less than the method detection limit for this metal.

Table 4
TPH, Ethanol, and Methanol in Groundwater
Winter 2006
EPA Method SW8015B (mg/L)
IRP Site 24 (Entomology Wash Rack)
Vandenberg AFB, California

Sample Location	Sample ID	Collection Date	TPH as Gasoline	TPH as Diesel	Ethanol	Methanol
		MDL[a]	0.02	0.19	0.25	0.25
		PQL[a]	0.1	1.0	0.5	0.5
Shallow Zone Wells						
24-PMW-1	V24PMW1	07-Mar-06	6.4 g	2.3 J b	0.5 U g	0.5 U g
24-PMW-1	V99W630 (D)	07-Mar-06	5.8 g	2.1 J b	0.5 U g	0.5 U g
24-PMW-2	V24PMW2	06-Mar-06	2 g	0.24 J b, q	0.5 U g	0.5 U g
24-PMW-3	V24PMW3	07-Mar-06	0.24 g	0.25 J b, q	0.5 U g	0.5 U g
24-PMW-4	V24PMW4	07-Mar-06	0.09 J q	0.39 J b, q	NA	NA
24-PMW-5	V24PMW5	07-Mar-06	0.092 J q	0.36 J b, q	NA	NA
24-PMW-8	V24PMW8	08-Mar-06	4.1[b] g	110 J b	200 g	11 g
24-PMW-10	V24PMW10	08-Mar-06	NA	0.096 UJ b	NA	NA
24-PMW-11	V24PMW11	10-Mar-06	NA	0.91 J q	NA	NA
24-PMW-13	V24PMW13	07-Mar-06	NA	0.099 UJ b	NA	NA
24-PMW-18	V24PMW18	09-Mar-06	22[c] g	0.094 UJ b	NA	NA
24-PMW-19	V24PMW19	10-Mar-06	0.02 U g	0.095 U g	NA	NA
24-PMW-21	V24PMW21	09-Mar-06	NA	0.099 UJ b	NA	NA
24-PMW-22	V24PMW22	07-Mar-06	2.6[c] g	0.1 UJ b	NA	NA
Intermediate Zone Wells						
24-MW-2	V24MW2	06-Mar-06	NA	0.095 UJ b	NA	NA
24-MW-3A	V24MW3A	08-Mar-06	NA	0.096 UJ b	NA	NA
24-MW-5A	V24MW5A	07-Mar-06	NA	0.097 UJ b	NA	NA
24-MW-8A	V24MW8A	08-Mar-06	NA	0.095 UJ b	NA	NA
24-MW-10A	V24MW10A	14-Mar-06	NA	0.1 UJ b	NA	NA
24-MW-11A	V24MW11A	09-Mar-06	NA	0.1 J b, q	NA	NA
24-MW-12A	V24MW12A	06-Mar-06	NA	0.15 J b, q	NA	NA
24-MW-14A	V24MW14A	09-Mar-06	NA	0.1 UJ b	NA	NA
24-MW-15A	V24MW15A	09-Mar-06	NA	0.097 UJ b	NA	NA
24-MW-22A	V24MW22A	07-Mar-06	NA	0.095 UJ b	NA	NA
Deep Zone Wells						
24-MW-3B	V24MW3B	07-Mar-06	NA	0.094 UJ b	NA	NA
24-MW-3B	V99W631 (D)	07-Mar-06	NA	0.097 UJ b	NA	NA
24-MW-4B	V24MW4BM	10-Mar-06	NA	0.19 J q	NA	NA
24-MW-5B	V24MW5B	07-Mar-06	0.064 J q	0.11 J b, q	NA	NA
24-MW-8B	V24MW8B	08-Mar-06	NA	0.096 UJ b	NA	NA
24-MW-10B	V24MW10B	06-Mar-06	NA	0.1 UJ b	NA	NA
24-MW-10B	V99W627 (D)	06-Mar-06	NA	0.096 UJ b	NA	NA
24-MW-11B	V24MW11B	09-Mar-06	NA	0.097 UJ b	NA	NA
24-MW-12B	V24MW12B	06-Mar-06	NA	0.36 J b, q	NA	NA
24-MW-13B	V24MW13B	07-Mar-06	NA	0.098 UJ b	NA	NA
24-MW-14B	V24MW14B	10-Mar-06	NA	0.098 UJ b	NA	NA
24-MW-14B	V99W633 (D)	10-Mar-06	NA	0.095 UJ b	NA	NA
24-MW-15B	V24MW15B	10-Mar-06	NA	0.097 UJ b	NA	NA
24-MW-16B	V24MW16B	09-Mar-06	NA	0.099 UJ b	NA	NA
24-MW-17B	V24MW17B	10-Mar-06	NA	0.094 UJ b	NA	NA
24-MW-19B	V24MW19B	10-Mar-06	NA	0.096 U g	NA	NA
24-MW-19B	V99W634 (D)	10-Mar-06	NA	0.1 U g	NA	NA
24-MW-20B	V24MW20B	09-Mar-06	NA	0.1 UJ b	NA	NA
24-MW-21B	V24MW21B	09-Mar-06	NA	0.099 UJ b	NA	NA
24-MW-22B	V24MW22B	07-Mar-06	NA	0.4 J b, q	NA	NA
24-MW-23B	V24MW23B	10-Mar-06	NA	0.097 U g	NA	NA
24-MW-24B	V24MW24B	10-Mar-06	NA	0.1 U g	NA	NA

Table 4
TPH, Ethanol, and Methanol in Groundwater
Winter 2006
EPA Method SW8015B (mg/L)
IRP Site 24 (Entomology Wash Rack)
Vandenberg AFB, California

Data Validity Qualifier(s):

- J - The analyte was positively identified and the result is usable; however, the analyte concentration is an estimated value.
- U - The analyte was not detected at or above the MDL.
- UJ - The analyte was not detected above the MDL; however, the MDL is uncertain and may be elevated above normal levels.

Data Validity Comment(s):

- b - The surrogate spike recovery was outside quality control criteria.
- g - The data met prescribed criteria as detailed in the QAPP.
- q - The analyte detection was below the PQL.

Definition(s):

- (D) - duplicate sample
- MDL - method detection limit
- mg/L - milligrams per liter
- NA - not analyzed
- PQL - practical quantitation limit
- QAPP - Quality Assurance Project Plan
- TPH - total petroleum hydrocarbons

Note(s):

- a - Values from QAPP Addendum (Tetra Tech 2004).
- b - TPHg detected in groundwater from this well were a result of chlorinated hydrocarbons in the gasoline range since no benzene, toluene, ethylbenzene, or xylenes were detected in groundwater from this well.
- c - TPHg detected in groundwater from this well were a result of chlorinated hydrocarbons in the gasoline range since the benzene concentration is very low compared to the very high TCE and/or PCE concentration.

Table 5
VOCs in Groundwater
Winter 2006
EPA Method SW8260B (µg/L)
IRP Site 24 (Entomology Wash Rack)
Vandenberg AFB, California

Sample Location				Shallow Zone Wells	24-PMW-1	24-PMW-1	24-PMW-2	24-PMW-3	24-PMW-4	24-PMW-5	24-PMW-8
Sample ID					V24PMW1	V99W630 (D)	V24PMW2	V24PMW3	V24PMW4	V24PMW5	V24PMW8
Collection Date					07-Mar-06	07-Mar-06	06-Mar-06	07-Mar-06	07-Mar-06	07-Mar-06	08-Mar-06
Analyte	**MDL[a]**	**PQL[a]**	**Primary MCL**								
1,1,1-TCA	0.19	1.0	200		1 J b	0.97 J b, q	0.23 J b, q	0.42 J q	**620** g	180 g	10 U g
1,1,2-TCA	0.28	1.0	5		**9.8** J b	**9** J b	0.2 U g	0.21 J q	4.9 g	2.7 g	10 U g
1,1,2-Trichlorotrifluoroethane	0.2	1.0	1,200		0.2 U g	0.2 U g	0.2 U g	0.2 U g	32 g	45 g	10 U g
1,1-DCA	0.18	1.0	5		**15** J b	**14** J b	0.2 U g	4.2 g	**510** g	**110** g	10 U g
1,1-DCE	0.32	1.0	6		**75** g	**83** g	0.67 J b, q	4.1 g	**200** g	**140** g	10 U g
1,2-DCB	0.13	0.5	600		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.44 J q	0.2 U g	10 U g
1,2-DCA	0.06	1.0	0.5		**280** g	**310** g	0.2 U g	**1** g	**1.7** g	**0.44** J q	10 U g
1,2-DCP	0.25	0.5	5		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	10 U g
1,4-DCB	0.11	1.0	5		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	10 U g
2-Butanone	1.0	10	N/A		5 U g	5 U g	5 U g	5 U g	5 U g	5 U g	4,900 g
Acetone	0.78	10	N/A		5 U g	5 U g	5 U g	19 g	5 U g	5 U g	3,700 g
Benzene	0.07	0.4	1		**850** g	**930** g	**4.2** g	**3.9** g	0.56 g	0.33 J q	10 U g
Bromodichloromethane	0.12	0.5	100[b]		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	10 U g
Carbon disulfide	0.48	1.0	N/A		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	10 U g
Chlorobenzene	0.12	0.5	70		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	10 U g
Chloroform	0.12	0.3	100[b]		38 g	42 g	2 J b	0.62 g	38 g	19 g	10 U g
Chloromethane	0.32	1.0	N/A		0.2 U g	0.2 U g	0.2 U g	0.2 U g	1.8 g	0.2 U g	10 U g
cis -1,2-DCE	0.21	1.0	6		4.6 J b	4.4 J b	0.2 U g	**20** g	2.1 g	2.8 g	**65** g
Dibromochloromethane	0.25	0.5	100[b]		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	10 U g
DIPE	0.16	5.0	N/A		25 J b	25 J b	0.2 U g	0.2 U g	0.2 U g	0.2 U g	10 U g
Ethylbenzene	0.12	1.0	300		55 g	59 g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	10 U g
m,p -Xylenes	0.25	2.0	1,750[c]		220 g	230 g	18 J b	0.5 U g	0.5 U g	0.5 U g	25 U g
MTBE	0.3	1.0	13		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.78 J q	10 U g
o -Xylene	0.13	1.0	1,750[c]		130 g	140 g	40 g	0.2 U g	0.2 U g	0.2 U g	10 U g
Styrene	0.13	1.0	100		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	10 U g
PCE	0.15	1.0	5		**55** g	**59** g	1.1 J b	**620** g	**22** g	**24** g	10 U g
Toluene	0.11	1.0	150		39 J b	37 J b	1.9 J b	0.2 U g	0.2 U g	0.2 U g	10 U g
trans -1,2-DCE	0.27	1.0	10		0.2 U g	0.2 U g	0.2 U g	0.25 J q	0.22 J q	0.27 J q	10 U g
TCE	0.18	1.0	5		**9.9** J b	**9.1** J b	**250** g	**55** g	**160** g	**120** g	**18** J q
TCFM	0.22	1.0	150		0.5 U g	0.5 U g	0.5 U g	0.5 U g	86 g	68 g	25 U g
Vinyl chloride	0.36	1.0	0.5		**3.6** J b	**3.3** J b	0.2 U g	**17** g	**10** g	**2.3** g	10 U g
All other target analytes	N/A	N/A	N/A		ND	ND	ND	ND	ND	ND	ND

Table 5
VOCs in Groundwater
Winter 2006
EPA Method SW8260B (µg/L)
IRP Site 24 (Entomology Wash Rack)
Vandenberg AFB, California

Sample Location				Shallow Zone Wells	24-PMW-8-2	24-PIW-8-1	24-PIW-8-1	24-PIW-8-2	24-PMW-9	24-PMW-10	24-PMW-11
Sample ID					V24PMW82	V24PIW81	V99W632 (D)	V24PIW82	V24PMW9	V24PMW10	V24PMW11
Collection Date					08-Mar-06	08-Mar-06	08-Mar-06	08-Mar-06	08-Mar-06	08-Mar-06	10-Mar-06
Analyte	MDL[a]	PQL[a]	Primary MCL								
1,1,1-TCA	0.19	1.0	200		5 U g	0.5 U g	0.5 U g	0.5 U g	0.2 U g	0.2 U g	0.2 U g
1,1,2-TCA	0.28	1.0	5		5 U g	0.5 U g	0.5 U g	0.5 U g	0.2 U g	0.2 U g	0.2 U g
1,1,2-Trichlorotrifluoroethane	0.2	1.0	1,200		5 U g	0.5 U g	0.5 U g	0.5 U g	0.2 U g	0.2 U g	0.2 U g
1,1-DCA	0.18	1.0	5		5 U g	0.5 U g	0.5 U g	0.5 U g	0.2 U g	0.2 U g	0.2 U g
1,1-DCE	0.32	1.0	6		5 U g	0.5 U g	0.5 U g	0.5 U g	0.2 U g	0.2 U g	0.2 U g
1,2-DCB	0.13	0.5	600		5 U g	0.5 U g	0.5 U g	0.5 U g	0.2 U g	0.2 U g	0.2 U g
1,2-DCA	0.06	1.0	0.5		5 U g	0.5 U g	0.5 U g	0.5 U g	0.2 U g	0.2 U g	0.2 U g
1,2-DCP	0.25	0.5	5		5 U g	0.5 U g	0.5 U g	0.5 U g	0.2 U g	0.2 U g	0.2 U g
1,4-DCB	0.11	1.0	5		5 U g	0.5 U g	0.5 U g	0.5 U g	0.2 U g	0.2 U g	0.2 U g
2-Butanone	1.0	10	N/A		2,000 g	190 g	170 g	110 g	5 U g	5 U g	5 U g
Acetone	0.78	10	N/A		6,500 g	68 g	12 U g	12 U g	5 U g	5 U g	5 U g
Benzene	0.07	0.4	1		5 U g	0.5 U g	0.5 U g	0.5 U g	0.2 U g	0.2 U g	0.2 U g
Bromodichloromethane	0.12	0.5	100[b]		5 U g	2.7 g	3.1 g	2.8 g	0.2 U g	0.2 U g	0.2 U g
Carbon disulfide	0.48	1.0	N/A		5 U g	5.9 J f	3.5 J f	6.5 g	0.2 U g	0.2 U g	0.2 U g
Chlorobenzene	0.12	0.5	70		5 U g	0.5 U g	0.5 U g	0.5 U g	0.2 U g	0.2 U g	0.2 U g
Chloroform	0.12	0.3	100[b]		5 U g	7.1 g	7.3 g	4.7 g	0.2 U g	0.2 U g	0.2 U g
Chloromethane	0.32	1.0	N/A		5 U g	0.5 U g	0.5 U g	0.5 U g	0.2 U g	0.2 U g	0.2 U g
cis -1,2-DCE	0.21	1.0	6		**80** g	1.3 J q	0.5 U g	0.5 U g	0.2 U g	0.2 U g	0.2 U g
Dibromochloromethane	0.25	0.5	100[b]		5 U g	1.3 g	1.5 g	1.8 g	0.2 U g	0.2 U g	0.2 U g
DIPE	0.16	5.0	N/A		5 U g	0.5 U g	0.5 U g	0.5 U g	0.2 U g	0.2 U g	0.2 U g
Ethylbenzene	0.12	1.0	300		5 U g	0.5 U g	0.5 U g	0.5 U g	0.2 U g	0.2 U g	0.2 U g
m,p -Xylenes	0.25	2.0	1,750[c]		12 U g	1.2 U g	1.2 U g	1.2 U g	0.5 U g	0.5 U g	0.5 U g
MTBE	0.3	1.0	13		5 U g	0.5 U g	0.5 U g	0.5 U g	0.2 U g	0.2 U g	0.2 U g
o -Xylene	0.13	1.0	1,750[c]		5 U g	0.5 U g	0.5 U g	0.5 U g	0.2 U g	0.2 U g	0.2 U g
Styrene	0.13	1.0	100		5 U g	0.5 U g	0.5 U g	1.1 J q	0.2 U g	0.2 U g	0.2 U g
PCE	0.15	1.0	5		5 U g	0.5 U g	0.5 U g	0.79 J q	**7.6** g	**22** g	1.6 g
Toluene	0.11	1.0	150		5 U g	0.5 U g	0.5 U g	5.3 g	0.2 U g	0.2 U g	0.2 U g
trans -1,2-DCE	0.27	1.0	10		5 U g	0.5 U g	0.5 U g	0.5 U g	0.2 U g	0.2 U g	0.2 U g
TCE	0.18	1.0	5		**11** J q	**11** g	0.5 U g	**25** g	2.1 g	2.8 g	0.23 J q
TCFM	0.22	1.0	150		12 U g	1.2 U g	1.2 U g	1.2 U g	0.5 U g	0.5 U g	0.5 U g
Vinyl chloride	0.36	1.0	0.5		5 U g	0.5 U g	0.5 U g	0.5 U g	0.2 U g	0.2 U g	0.2 U g
All other target analytes	N/A	N/A	N/A		ND	ND	ND	ND	ND	ND	ND

Table 5
VOCs in Groundwater
Winter 2006
EPA Method SW8260B (µg/L)
IRP Site 24 (Entomology Wash Rack)
Vandenberg AFB, California

Sample Location				Shallow Zone Wells	24-PMW-13	24-PMW-18	24-PMW-19	24-PMW-21	24-PMW-22	24-PMW-26
Sample ID					V24PMW13	V24PMW18	V24PMW19	V24PMW21	V24PMW22	V24PMW26
Collection Date					07-Mar-06	09-Mar-06	10-Mar-06	09-Mar-06	07-Mar-06	13-Mar-06
Analyte	MDL[a]	PQL[a]	Primary MCL							
1,1,1-TCA	0.19	1.0	200		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
1,1,2-TCA	0.28	1.0	5		0.2 U g	0.66 J b, q	0.2 U g	0.2 U g	0.2 U g	0.2 U g
1,1,2-Trichlorotrifluoroethane	0.2	1.0	1,200		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
1,1-DCA	0.18	1.0	5		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
1,1-DCE	0.32	1.0	6		0.2 U g	0.77 J b, q	0.2 U g	0.2 U g	0.85 J b, q	0.2 U g
1,2-DCB	0.13	0.5	600		0.2 U g	0.29 J b, q	0.2 U g	0.2 U g	0.2 U g	0.2 U g
1,2-DCA	0.06	1.0	0.5		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
1,2-DCP	0.25	0.5	5		0.2 U g	1.2 J b	0.2 U g	0.2 U g	0.97 J b	0.2 U g
1,4-DCB	0.11	1.0	5		0.2 U g	1.3 J b	0.2 U g	0.2 U g	0.64 J b, q	0.2 U g
2-Butanone	1.0	10	N/A		5 U g	5 U g	5 U g	5 U g	5 U g	5 U g
Acetone	0.78	10	N/A		5 U g	5 U g	5 U g	5 U g	5 U g	5 U g
Benzene	0.07	0.4	1		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.23 J b, q	0.2 U g
Bromodichloromethane	0.12	0.5	100[b]		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
Carbon disulfide	0.48	1.0	N/A		0.2 U g	0.3 J b, q	0.2 U g	0.2 U g	0.2 U g	0.2 U g
Chlorobenzene	0.12	0.5	70		0.29 J q	1.1 J b	0.2 U g	0.2 U g	1 J b	0.2 U g
Chloroform	0.12	0.3	100[b]		0.2 U g	0.49 J b	0.2 U g	0.2 U g	0.61 J b	0.2 U g
Chloromethane	0.32	1.0	N/A		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
cis -1,2-DCE	0.21	1.0	6		0.21 J q	**42** J b	0.2 U g	0.2 U g	**9.6** J b	0.2 U g
Dibromochloromethane	0.25	0.5	100[b]		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
DIPE	0.16	5.0	N/A		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
Ethylbenzene	0.12	1.0	300		0.2 U g	0.23 J b, q	0.2 U g	0.2 U g	0.2 U g	0.2 U g
m,p -Xylenes	0.25	2.0	1,750[c]		0.5 U g	0.66 J b, q	0.5 U g	0.5 U g	0.5 U g	0.5 U g
MTBE	0.3	1.0	13		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
o -Xylene	0.13	1.0	1,750[c]		0.2 U g	0.5 J b, q	0.2 U g	0.2 U g	0.2 U g	0.2 U g
Styrene	0.13	1.0	100		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
PCE	0.15	1.0	5		2 g	**47,000** g	0.2 U g	**49** g	**28,000** g	4.4 g
Toluene	0.11	1.0	150		0.2 U g	2 J b	0.2 U g	0.2 U g	0.65 J b, q	0.2 U g
trans -1,2-DCE	0.27	1.0	10		0.2 U g	0.47 J b, q	0.2 U g	0.2 U g	0.35 J b, q	0.2 U g
TCE	0.18	1.0	5		0.81 J q	**67** J b, r	0.2 U g	2.1 g	**69** J b, r	0.22 J q
TCFM	0.22	1.0	150		0.5 U g	0.5 U g	0.5 U g	0.5 U g	0.5 U g	0.5 U g
Vinyl chloride	0.36	1.0	0.5		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
All other target analytes	N/A	N/A	N/A		ND	ND	ND	ND	ND	ND

Table 5
VOCs in Groundwater
Winter 2006
EPA Method SW8260B (µg/L)
IRP Site 24 (Entomology Wash Rack)
Vandenberg AFB, California

Sample Location				Intermediate Zone Wells	24-MW-2	24-MW-3A	24-MW-5A	24-MW-8A	24-MW-8A-2	24-MW-9A	24-MW-10A
Sample ID					V24MW2	V24MW3A	V24MW5A	V24MW8A	V24MW8A2	V24MW9A	V24MW10A
Collection Date					06-Mar-06	08-Mar-06	07-Mar-06	08-Mar-06	08-Mar-06	07-Mar-06	14-Mar-06
Analyte	MDL[a]	PQL[a]	Primary MCL								
1,1,1-TCA	0.19	1.0	200		0.2 U g	0.2 U g	66 g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
1,1,2-TCA	0.28	1.0	5		0.2 U g	0.2 U g	1 g	0.36 J q	0.31 J q	0.2 U g	0.2 U g
1,1,2-Trichlorotrifluoroethane	0.2	1.0	1,200		0.2 U g	0.2 U g	0.87 J q	0.2 U g	0.2 U g	0.2 U g	0.2 U g
1,1-DCA	0.18	1.0	5		0.2 U g	0.2 U g	**34** g	0.39 J q	0.2 U g	0.2 U g	0.2 U g
1,1-DCE	0.32	1.0	6		0.2 U g	0.2 U g	**62** g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
1,2-DCB	0.13	0.5	600		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
1,2-DCA	0.06	1.0	0.5		0.2 U g	0.2 U g	**0.64** J q	0.2 U g	0.2 U g	0.2 U g	0.2 U g
1,2-DCP	0.25	0.5	5		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
1,4-DCB	0.11	1.0	5		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
2-Butanone	1.0	10	N/A		5 U g	5 U g	5 U g	5 U g	5 U g	5 U g	5 U g
Acetone	0.78	10	N/A		5 U g	5 U g	5 U g	5 U g	5 U g	5 U g	5 U g
Benzene	0.07	0.4	1		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
Bromodichloromethane	0.12	0.5	100[b]		0.2 U g	0.2 U g	0.2 U g	0.28 J q	0.29 J q	0.2 U g	0.2 U g
Carbon disulfide	0.48	1.0	N/A		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
Chlorobenzene	0.12	0.5	70		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
Chloroform	0.12	0.3	100[b]		0.25 J q	0.2 U g	44 g	2.8 g	1.4 g	0.2 U g	0.2 U g
Chloromethane	0.32	1.0	N/A		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
cis -1,2-DCE	0.21	1.0	6		0.27 J q	0.2 U g	2 g	**17** g	**55** g	0.2 U g	0.2 U g
Dibromochloromethane	0.25	0.5	100[b]		0.2 U g	0.2 U g	0.2 U g	0.24 J q	0.22 J q	0.2 U g	0.2 U g
DIPE	0.16	5.0	N/A		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
Ethylbenzene	0.12	1.0	300		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
m,p -Xylenes	0.25	2.0	1,750[c]		0.5 U g	0.5 U g	0.5 U g	0.5 U g	0.5 U g	0.5 U g	0.5 U g
MTBE	0.3	1.0	13		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
o -Xylene	0.13	1.0	1,750[c]		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
Styrene	0.13	1.0	100		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
PCE	0.15	1.0	5		**13** g	0.2 U g	4.2 g	**27** g	**25** g	3.5 g	1.7 g
Toluene	0.11	1.0	150		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
trans -1,2-DCE	0.27	1.0	10		0.2 U g	0.2 U g	0.42 J q	0.2 U g	0.2 U g	0.2 U g	0.2 U g
TCE	0.18	1.0	5		**67** g	0.2 U g	**180** g	**280** g	**280** g	**16** g	0.2 U g
TCFM	0.22	1.0	150		0.5 U g	0.5 U g	9.4 g	1.9 g	0.5 U g	0.5 U g	0.5 U g
Vinyl chloride	0.36	1.0	0.5		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
All other target analytes	N/A	N/A	N/A		ND	ND	ND	ND	ND	ND	ND

Table 5
VOCs in Groundwater
Winter 2006
EPA Method SW8260B (µg/L)
IRP Site 24 (Entomology Wash Rack)
Vandenberg AFB, California

Sample Location				Intermediate Zone Wells	24-MW-11A	24-MW-12A	24-MW-14A	24-MW-15A	24-MW-22A	24-MW-26A
Sample ID					V24MW11A	V24MW12A	V24MW14A	V24MW15A	V24MW22A	V24MW26A
Collection Date					09-Mar-06	06-Mar-06	09-Mar-06	09-Mar-06	07-Mar-06	13-Mar-06
Analyte	MDL[a]	PQL[a]	Primary MCL							
1,1,1-TCA	0.19	1.0	200		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
1,1,2-TCA	0.28	1.0	5		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.3 J q
1,1,2-Trichlorotrifluoroethane	0.2	1.0	1,200		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
1,1-DCA	0.18	1.0	5		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
1,1-DCE	0.32	1.0	6		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
1,2-DCB	0.13	0.5	600		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
1,2-DCA	0.06	1.0	0.5		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
1,2-DCP	0.25	0.5	5		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
1,4-DCB	0.11	1.0	5		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
2-Butanone	1.0	10	N/A		5 U g	5 U g	5 U g	5 U g	5 U g	5 U g
Acetone	0.78	10	N/A		5 U g	5 U g	5 U g	5 U g	5 U g	5 U g
Benzene	0.07	0.4	1		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
Bromodichloromethane	0.12	0.5	100[b]		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
Carbon disulfide	0.48	1.0	N/A		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
Chlorobenzene	0.12	0.5	70		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
Chloroform	0.12	0.3	100[b]		0.2 U g	0.2 U g	0.2 U g	0.22 J q	0.2 U g	0.68 g
Chloromethane	0.32	1.0	N/A		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
cis -1,2-DCE	0.21	1.0	6		0.2 U g	0.2 U g	0.2 U g	0.77 J q	0.2 U g	**9.8** g
Dibromochloromethane	0.25	0.5	100[b]		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
DIPE	0.16	5.0	N/A		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
Ethylbenzene	0.12	1.0	300		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
m,p -Xylenes	0.25	2.0	1,750[c]		0.5 U g	0.5 U g	0.5 U g	0.5 U g	0.5 U g	0.5 U g
MTBE	0.3	1.0	13		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
o -Xylene	0.13	1.0	1,750[c]		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
Styrene	0.13	1.0	100		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
PCE	0.15	1.0	5		1.9 g	0.2 U g	0.2 U g	**15** g	**48** g	**2,900** g
Toluene	0.11	1.0	150		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
trans -1,2-DCE	0.27	1.0	10		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
TCE	0.18	1.0	5		0.8 J q	0.2 U g	0.2 U g	**9.5** g	0.3 J q	**16** g
TCFM	0.22	1.0	150		0.5 U g	0.5 U g	0.5 U g	0.5 U g	0.5 U g	0.5 U g
Vinyl chloride	0.36	1.0	0.5		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
All other target analytes	N/A	N/A	N/A		ND	ND	ND	ND	ND	ND

Table 5
VOCs in Groundwater
Winter 2006
EPA Method SW8260B (µg/L)
IRP Site 24 (Entomology Wash Rack)
Vandenberg AFB, California

Sample Location				Intermediate Zone Wells	24-MW-28A	24-MW-29A	24-MW-30A
Sample ID					V24MW28A	V24MW29A	V24MW30A
Collection Date					14-Mar-06	14-Mar-06	13-Mar-06
Analyte	MDL[a]	PQL[a]	Primary MCL				
1,1,1-TCA	0.19	1.0	200		0.2 U g	0.2 U g	0.2 U g
1,1,2-TCA	0.28	1.0	5		0.2 U g	0.2 U g	0.2 U g
1,1,2-Trichlorotrifluoroethane	0.2	1.0	1,200		0.2 U g	0.2 U g	0.2 U g
1,1-DCA	0.18	1.0	5		0.2 U g	0.2 U g	0.2 U g
1,1-DCE	0.32	1.0	6		0.2 U g	0.2 U g	0.2 U g
1,2-DCB	0.13	0.5	600		0.2 U g	0.2 U g	0.2 U g
1,2-DCA	0.06	1.0	0.5		0.2 U g	0.2 U g	0.2 U g
1,2-DCP	0.25	0.5	5		0.2 U g	0.2 U g	0.2 U g
1,4-DCB	0.11	1.0	5		0.2 U g	0.2 U g	0.2 U g
2-Butanone	1.0	10	N/A		5 U g	5 U g	5 U g
Acetone	0.78	10	N/A		5 U g	5 U g	5 U g
Benzene	0.07	0.4	1		0.2 U g	0.2 U g	0.2 U g
Bromodichloromethane	0.12	0.5	100[b]		0.2 U g	0.2 U g	0.2 U g
Carbon disulfide	0.48	1.0	N/A		0.2 U g	0.2 U g	0.2 U g
Chlorobenzene	0.12	0.5	70		0.2 U g	0.2 U g	0.2 U g
Chloroform	0.12	0.3	100[b]		0.2 U g	0.2 U g	0.2 U g
Chloromethane	0.32	1.0	N/A		0.2 U g	0.2 U g	0.2 U g
cis -1,2-DCE	0.21	1.0	6		0.2 U g	0.2 U g	0.2 U g
Dibromochloromethane	0.25	0.5	100[b]		0.2 U g	0.2 U g	0.2 U g
DIPE	0.16	5.0	N/A		0.2 U g	0.2 U g	0.2 U g
Ethylbenzene	0.12	1.0	300		0.2 U g	0.2 U g	0.2 U g
m,p -Xylenes	0.25	2.0	1,750[c]		0.5 U g	0.5 U g	0.5 U g
MTBE	0.3	1.0	13		0.2 U g	0.2 U g	0.2 U g
o -Xylene	0.13	1.0	1,750[c]		0.2 U g	0.2 U g	0.2 U g
Styrene	0.13	1.0	100		0.2 U g	0.2 U g	0.2 U g
PCE	0.15	1.0	5		**26** g	**19** g	1.4 g
Toluene	0.11	1.0	150		0.2 U g	0.2 U g	0.2 U g
trans -1,2-DCE	0.27	1.0	10		0.2 U g	0.2 U g	0.2 U g
TCE	0.18	1.0	5		0.43 J q	0.2 U g	0.2 U g
TCFM	0.22	1.0	150		0.5 U g	0.5 U g	0.5 U g
Vinyl chloride	0.36	1.0	0.5		0.2 U g	0.2 U g	0.2 U g
All other target analytes	N/A	N/A	N/A		ND	ND	ND

Table 5
VOCs in Groundwater
Winter 2006
EPA Method SW8260B (µg/L)
IRP Site 24 (Entomology Wash Rack)
Vandenberg AFB, California

Sample Location				Deep Zone Wells	24-MW-3B	24-MW-3B	24-MW-4B	24-MW-5B	24-MW-8B	24-MW-9B	24-MW-10B
Sample ID					V24MW3B	V99W631 (D)	V24MW4BM	V24MW5B	V24MW8B	V24MW9B	V24MW10B
Collection Date					07-Mar-06	07-Mar-06	10-Mar-06	07-Mar-06	08-Mar-06	07-Mar-06	06-Mar-06
Analyte	MDL[a]	PQL[a]	Primary MCL								
1,1,1-TCA	0.19	1.0	200		0.2 U g	0.2 U g	0.2 U g	66 g	0.2 U g	0.2 U g	0.2 U g
1,1,2-TCA	0.28	1.0	5		0.2 U g	0.2 U g	0.2 U g	**6.2** g	0.45 J q	0.2 U g	0.2 U g
1,1,2-Trichlorotrifluoroethane	0.2	1.0	1,200		0.2 U g	0.2 U g	0.2 U g	0.38 J q	0.48 J q	0.2 U g	0.2 U g
1,1-DCA	0.18	1.0	5		0.2 U g	0.2 U g	0.2 U g	**92** g	0.85 J q	0.2 U g	0.2 U g
1,1-DCE	0.32	1.0	6		0.2 U g	0.2 U g	0.2 U g	**520** g	0.52 J q	0.2 U g	0.2 U g
1,2-DCB	0.13	0.5	600		0.28 J q	0.27 J q	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
1,2-DCA	0.06	1.0	0.5		0.2 U g	0.2 U g	0.2 U g	**9.4** g	0.2 U g	0.2 U g	0.2 U g
1,2-DCP	0.25	0.5	5		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
1,4-DCB	0.11	1.0	5		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
2-Butanone	1.0	10	N/A		5 U g	5 U g	5 U g	5 U g	5 U g	5 U g	5 U g
Acetone	0.78	10	N/A		5 U g	5 U g	5 U g	5 U g	5 U g	5 U g	5 U g
Benzene	0.07	0.4	1		0.2 U g	0.2 U g	0.2 U g	0.51 g	0.2 U g	0.2 U g	0.2 U g
Bromodichloromethane	0.12	0.5	100[b]		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
Carbon disulfide	0.48	1.0	N/A		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
Chlorobenzene	0.12	0.5	70		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
Chloroform	0.12	0.3	100[b]		0.2 U g	0.2 U g	0.2 U g	20 g	2.5 g	0.2 U g	0.2 U g
Chloromethane	0.32	1.0	N/A		0.2 U g	0.2 U g	0.2 U g	0.87 J q	0.2 U g	0.2 U g	0.2 U g
cis -1,2-DCE	0.21	1.0	6		0.2 U g	0.2 U g	0.2 U g	**18** g	**64** g	0.2 U g	0.2 U g
Dibromochloromethane	0.25	0.5	100[b]		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
DIPE	0.16	5.0	N/A		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
Ethylbenzene	0.12	1.0	300		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
m,p -Xylenes	0.25	2.0	1,750[c]		0.5 U g	0.5 U g	0.5 U g	0.5 U g	0.5 U g	0.5 U g	0.5 U g
MTBE	0.3	1.0	13		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
o -Xylene	0.13	1.0	1,750[c]		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
Styrene	0.13	1.0	100		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
PCE	0.15	1.0	5		0.2 U g	0.2 U g	0.2 U g	**25** g	**41** g	0.73 J q	**91** g
Toluene	0.11	1.0	150		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
trans -1,2-DCE	0.27	1.0	10		0.2 U g	0.2 U g	0.2 U g	1.9 g	0.2 U g	0.2 U g	0.2 U g
TCE	0.18	1.0	5		1.6 g	1.6 g	0.2 U g	**42** g	**560** g	**10** g	1.2 g
TCFM	0.22	1.0	150		0.5 U g	0.5 U g	0.5 U g	7.2 g	11 g	0.5 U g	0.5 U g
Vinyl chloride	0.36	1.0	0.5		0.2 U g	0.2 U g	0.2 U g	**2.8** g	0.2 U g	0.2 U g	0.2 U g
All other target analytes	N/A	N/A	N/A		ND	ND	ND	ND	ND	ND	ND

Table 5
VOCs in Groundwater
Winter 2006
EPA Method SW8260B (µg/L)
IRP Site 24 (Entomology Wash Rack)
Vandenberg AFB, California

Sample Location				Deep Zone Wells	24-MW-10B	24-MW-11B	24-MW-12B	24-MW-13B	24-MW-14B	24-MW-14B	24-MW-15B
Sample ID					V99W627 (D)	V24MW11B	V24MW12B	V24MW13B	V24MW14B	V99W633 (D)	V24MW15B
Collection Date					06-Mar-06	09-Mar-06	03-Mar-06	07-Mar-06	10-Mar-06	10-Mar-06	10-Mar-06
Analyte	MDL[a]	PQL[a]	Primary MCL								
1,1,1-TCA	0.19	1.0	200		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
1,1,2-TCA	0.28	1.0	5		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.51 J q	0.54 J q	0.2 U g
1,1,2-Trichlorotrifluoroethane	0.2	1.0	1,200		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
1,1-DCA	0.18	1.0	5		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
1,1-DCE	0.32	1.0	6		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
1,2-DCB	0.13	0.5	600		0.2 U g	0.43 J q	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
1,2-DCA	0.06	1.0	0.5		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
1,2-DCP	0.25	0.5	5		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
1,4-DCB	0.11	1.0	5		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
2-Butanone	1.0	10	N/A		5 U g	5 U g	5 U g	5 U g	5 U g	5 U g	5 U g
Acetone	0.78	10	N/A		5 U g	5 U g	5 U g	5 U g	5 U g	5 U g	5 U g
Benzene	0.07	0.4	1		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
Bromodichloromethane	0.12	0.5	100[b]		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
Carbon disulfide	0.48	1.0	N/A		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
Chlorobenzene	0.12	0.5	70		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
Chloroform	0.12	0.3	100[b]		0.2 U g	0.2 U g	0.2 U g	0.2 U g	2.4 g	2.4 g	0.2 U g
Chloromethane	0.32	1.0	N/A		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
cis -1,2-DCE	0.21	1.0	6		0.2 U g	0.2 U g	0.2 U g	0.33 J q	3.1 g	3.2 g	0.2 U g
Dibromochloromethane	0.25	0.5	100[b]		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
DIPE	0.16	5.0	N/A		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
Ethylbenzene	0.12	1.0	300		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
m,p -Xylenes	0.25	2.0	1,750[c]		0.5 U g	0.5 U g	0.5 U g	0.5 U g	0.5 U g	0.5 U g	0.5 U g
MTBE	0.3	1.0	13		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
o -Xylene	0.13	1.0	1,750[c]		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
Styrene	0.13	1.0	100		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
PCE	0.15	1.0	5		**93** g	0.81 J q	0.2 U g	**660** g	**17** g	**17** g	0.2 U g
Toluene	0.11	1.0	150		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
trans -1,2-DCE	0.27	1.0	10		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
TCE	0.18	1.0	5		1.2 g	0.45 J q	0.2 U g	**7.4** g	**1,100** g	**1,000** g	0.2 U g
TCFM	0.22	1.0	150		0.5 U g	0.5 U g	0.5 U g	0.5 U g	1.5 g	1.6 g	0.5 U g
Vinyl chloride	0.36	1.0	0.5		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
All other target analytes	N/A	N/A	N/A		ND	ND	ND	ND	ND	ND	ND

Table 5
VOCs in Groundwater
Winter 2006
EPA Method SW8260B (µg/L)
IRP Site 24 (Entomology Wash Rack)
Vandenberg AFB, California

Sample Location				Deep Zone Wells	24-MW-16B	24-MW-17B	24-MW-19B	24-MW-19B	24-MW-20B	24-MW-21B	24-MW-22B
Sample ID					V24MW16B	V24MW17B	V24MW19B	V99W634 (D)	V24MW20B	V24MW21B	V24MW22B
Collection Date					09-Mar-06	10-Mar-06	10-Mar-06	10-Mar-06	09-Mar-06	09-Mar-06	07-Mar-06
Analyte	MDL[a]	PQL[a]	Primary MCL								
1,1,1-TCA	0.19	1.0	200		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
1,1,2-TCA	0.28	1.0	5		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
1,1,2-Trichlorotrifluoroethane	0.2	1.0	1,200		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
1,1-DCA	0.18	1.0	5		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
1,1-DCE	0.32	1.0	6		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
1,2-DCB	0.13	0.5	600		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
1,2-DCA	0.06	1.0	0.5		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
1,2-DCP	0.25	0.5	5		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
1,4-DCB	0.11	1.0	5		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
2-Butanone	1.0	10	N/A		5 U g	5 U g	5 U g	5 U g	5 U g	5 U g	5 U g
Acetone	0.78	10	N/A		5 U g	5 U g	5 U g	5 U g	5 U g	14 g	5 U g
Benzene	0.07	0.4	1		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
Bromodichloromethane	0.12	0.5	100[b]		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
Carbon disulfide	0.48	1.0	N/A		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.28 J q	0.51 J q	0.63 J q
Chlorobenzene	0.12	0.5	70		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
Chloroform	0.12	0.3	100[b]		0.2 U g	0.33 g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
Chloromethane	0.32	1.0	N/A		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
cis -1,2-DCE	0.21	1.0	6		0.2 U g	1.2 g	**8.8** g	**8.9** g	1.1 g	**12** g	**8.4** g
Dibromochloromethane	0.25	0.5	100[b]		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
DIPE	0.16	5.0	N/A		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
Ethylbenzene	0.12	1.0	300		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
m,p -Xylenes	0.25	2.0	1,750[c]		0.5 U g	0.5 U g	0.5 U g	0.5 U g	0.5 U g	0.5 U g	0.5 U g
MTBE	0.3	1.0	13		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
o -Xylene	0.13	1.0	1,750[c]		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
Styrene	0.13	1.0	100		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
PCE	0.15	1.0	5		**13** g	5 g	0.91 J q	0.85 J q	**13** g	0.2 U g	4.5 g
Toluene	0.11	1.0	150		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
trans -1,2-DCE	0.27	1.0	10		0.2 U g	0.2 U g	0.55 J q	0.58 J q	0.2 U g	0.6 J q	0.2 U g
TCE	0.18	1.0	5		0.21 J q	**110** g	4.1 g	4.1 g	**6.3** g	**5.6** g	4 g
TCFM	0.22	1.0	150		0.5 U g	0.5 U g	0.5 U g	0.5 U g	0.5 U g	0.5 U g	0.5 U g
Vinyl chloride	0.36	1.0	0.5		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
All other target analytes	N/A	N/A	N/A		ND	ND	ND	ND	ND	ND	ND

Table 5
VOCs in Groundwater
Winter 2006
EPA Method SW8260B (µg/L)
IRP Site 24 (Entomology Wash Rack)
Vandenberg AFB, California

Sample Location				Deep Zone Wells	24-MW-23B	24-MW-24B	24-MW-25B	24-MW-26B	24-MW-27B	24-MW-27B
Sample ID					V24MW23B	V24MW24B	V24MW25B	V24MW26B	24MW27B	V99W636 (D)
Collection Date					10-Mar-06	10-Mar-06	10-Mar-06	13-Mar-06	14-Mar-06	14-Mar-06
Analyte	MDL[a]	PQL[a]	Primary MCL							
1,1,1-TCA	0.19	1.0	200		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
1,1,2-TCA	0.28	1.0	5		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
1,1,2-Trichlorotrifluoroethane	0.2	1.0	1,200		0.73 J q	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
1,1-DCA	0.18	1.0	5		0.43 J q	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
1,1-DCE	0.32	1.0	6		0.3 J q	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
1,2-DCB	0.13	0.5	600		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
1,2-DCA	0.06	1.0	0.5		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
1,2-DCP	0.25	0.5	5		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
1,4-DCB	0.11	1.0	5		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
2-Butanone	1.0	10	N/A		5 U g	5 U g	5 U g	5 U g	5 U g	5 U g
Acetone	0.78	10	N/A		5 U g	5 U g	5 U g	5 U g	5 U g	5 U g
Benzene	0.07	0.4	1		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
Bromodichloromethane	0.12	0.5	100[b]		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
Carbon disulfide	0.48	1.0	N/A		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
Chlorobenzene	0.12	0.5	70		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
Chloroform	0.12	0.3	100[b]		1.5 g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
Chloromethane	0.32	1.0	N/A		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
cis -1,2-DCE	0.21	1.0	6		1.4 g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
Dibromochloromethane	0.25	0.5	100[b]		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
DIPE	0.16	5.0	N/A		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
Ethylbenzene	0.12	1.0	300		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
m,p -Xylenes	0.25	2.0	1,750[c]		0.5 U g	0.5 U g	0.5 U g	0.5 U g	0.5 U g	0.5 U g
MTBE	0.3	1.0	13		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
o -Xylene	0.13	1.0	1,750[c]		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
Styrene	0.13	1.0	100		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
PCE	0.15	1.0	5		**14** g	0.2 U g	0.2 U g	**72** g	**33** g	**30** g
Toluene	0.11	1.0	150		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
trans -1,2-DCE	0.27	1.0	10		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
TCE	0.18	1.0	5		**170** g	0.2 U g	0.2 U g	0.51 J b, q	0.37 J q	0.34 J q
TCFM	0.22	1.0	150		11 g	0.5 U g	0.5 U g	0.5 U g	0.5 U g	0.5 U g
Vinyl chloride	0.36	1.0	0.5		0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g	0.2 U g
All other target analytes	N/A	N/A	N/A		ND	ND	ND	ND	ND	ND

Table 5
VOCs in Groundwater
Winter 2006
EPA Method SW8260B (µg/L)
IRP Site 24 (Entomology Wash Rack)
Vandenberg AFB, California

Data Validity Qualifier(s):

J - The analyte was positively identified and the result is usable; however, the analyte concentration is an estimated value.
U - The analyte was not detected at or above the MDL.

Data Validity Comment(s):

b - The surrogate spike recovery was outside quality control criteria.
f - The duplicate/replicate sample's relative percent difference was outside the control limit.
g - The data met prescribed criteria as detailed in the QAPP.
q - The analyte detection was below the PQL.
r - The result is above the instrument's calibration range.

Definition(s):

(D) - duplicate sample
DCA - dichloroethane
DCB - dichlorobenzene
DCE - dichloroethene
DCP - dichloropropane
DIPE - diisopropyl ether
MCL - maximum contaminant level
MDL - method detection limit
MTBE - methyl-tert-butyl ether
µg/L - micrograms per liter
N/A - not applicable
PCE - tetrachloroethene
PQL - practical quantitation limit
QAPP - Quality Assurance Project Plan
TCA - trichloroethane
TCE - trichloroethene
TCFM - trichlorofluoromethane

Note(s):

Bold type indicates results that were above the MCL.
a - Values from QAPP Addendum (Tetra Tech 2004).
b - For total trihalomethanes (sum of bromoform, bromodichloromethane, chloroform, and dibromochloromethane).
c - MCL of 1,750 µg/L applies to sum of *m*-xylene, *o*-xylene, and *p*-xylene.

Table 6
1,4-Dioxane and SVOCs in Groundwater
Winter 2006
EPA Methods Modified SW8270C SIM and SW8270C (µg/L)
IRP Site 24 (Entomology Wash Rack)
Vandenberg AFB, California

Location	Sample ID	Date	1,4-Dioxane	Benzoic acid	4-Methylphenol	Naphthalene	Phenol	Target
		MDL[1]	0.5	21	1.8	1.6	2.4	N/A
		PQL[1]	3.0	100	50	10	10	N/A
Shallow Zone Wells								
24-PMW-1	V24PMW1		NA	9.5 U g	4.8 U g	4.8 U g	4.8 U g	ND
24-PMW-1	V99W630 (D)		NA	9.8 U g	4.9 U g	4.9 U g	4.9 U g	ND
24-PMW-2	V24PMW2		NA	10 U g	5 U g	5.7 J q	5 U g	ND
24-PMW-3	V24PMW3		NA	9.7 U g	4.9 U g	4.9 U g	4.9 U g	ND
24-PMW-4	V24PMW4		280 R b	9.7 U g	4.9 U g	4.9 U g	4.9 U g	ND
24-PMW-5	V24PMW5		59 g	9.6 U g	4.8 U g	4.8 U g	4.8 U g	ND
24-PMW-8	V24PMW8		NA	1,800 J q	1,000 J q	250 U g	1,900 g	ND
Intermediate Zone Well								
24-MW-5A	V24MW5A		110 g	9.6 U g	4.8 U g	4.8 U g	4.8 U g	ND
Deep Zone Well								
29-MW-5B	V29MW5B		980 J b	NA	NA	NA	NA	NA

Data Validity Qualifier(s):

J - The analyte was positively identified and the result is usable; however, the analyte concentration is an estimated value.
R - The sample result is rejected and not usable for any purpose. The presence or absence of the analyte cannot be verified.
U - The analyte was not detected at or above the MDL.

Data Validity Comment(s):

b - The surrogate spike recovery was outside quality control criteria.
g - The data met prescribed criteria as detailed in the QAPP.
q - The analyte detection was below the PQL.

Definition(s):

(D) - duplicate sample
MDL - method detection limit
µg/L - micrograms per liter
N/A - not applicable
NA - not analyzed
ND - Not detected; result is less than the MDL.
PQL - practical quantitation limit
QAPP - Quality Assurance Project Plan
SVOC - semivolatile organic compound

Note(s):

The California Department of Health Services notification level for 1,4-dioxane is 3 µg/L.
1 - Values from QAPP Addendum (Tetra Tech 2004).

Table 7
OCPs and OPPs in Groundwater
Winter 2006
EPA Methods SW8081B and SW8141A (µg/L)
IRP Site 24 (Entomology Wash Rack)
Vandenberg AFB, California

Sample Location				24-PMW-1	24-PMW-1	24-PMW-2	24-PMW-3
Sample ID				V24PMW1	V99W630 (D)	V24PMW2	V24PMW3
Collection Date				07-Mar-06	07-Mar-06	06-Mar-06	07-Mar-06
Analyte	MDL[1]	PQL[1]	Primary MCL				
OCPs							
Aldrin	0.002	0.1	N/A	0.019 U g	0.071 J q	0.021 U g	0.026 J q
alpha-BHC	0.002	0.1	N/A	0.019 U g	0.092 J q	0.021 U g	0.02 U g
beta-BHC	0.005	0.1	N/A	0.11 J f	0.18 J f	0.021 U g	0.02 U g
Heptachlor epoxide	0.004	0.1	0.01	0.019 U g	**0.092** J q	0.021 U g	0.02 U g
gamma-BHC (Lindane)	0.002	0.1	0.2	0.03 J q	**0.31** g	0.021 U g	0.02 U g
All other target analytes	N/A	N/A	N/A	ND	ND	ND	ND
OPPs							
All target analytes	N/A	N/A	N/A	ND	ND	ND	ND

Data Validity Qualifier(s):

J - The analyte was positively identified and the result is usable; however, the analyte concentration is an estimated value.
U - The analyte was not detected at or above the MDL.

Data Validity Comment(s):

f - The duplicate/replicate sample's relative percent difference was outside the control limit.
g - The data met prescribed criteria as detailed in the QAPP.
q - The analyte detection was below the PQL.

Definition(s):

BHC - benzene hexachloride
MDL - method detection limit
µg/L - micrograms per liter
N/A - not applicable
ND - Not detected; result is less than the MDL.
OCP - organochlorine pesticide
OPP - organophosphorous pesticide
PQL - practical quantitation limit
QAPP - Quality Assurance Project Plan

Note(s):

Bold type indicates results that were above the MCL.
1 - Values from QAPP Addendum (Tetra Tech 2004).

Table 8
Summary of Key Contaminants of Concern
IRP Site 24 (Entomology Wash Rack)
Vandenberg AFB, California

	PCE [a] (µg/L)												
Sample Location	**May-01**	**Dec-02**	**Oct-03**	**Nov-03/ Dec-03**	**Jan-04**	**Aug-04**	**Dec-04**	**Fall-04**	**Win-05**	**Spr-05**	**Sum-05**	**Fall-05**	**Win-06**
Shallow Zone Wells													
24-PMW-1	**102**	**96.4**	NA	**103**	NA	NA	NA	**32**	**55**	**54**	**38**	**34**	**59***
24-PMW-2	0.811	2.6	NA	1.8	NA	NA	NA	0.5	0.78	1.1	0.76	2.2	1.1
24-PMW-3	**751**	**361**	NA	**380**	NA	NA	NA	**490**	**770**	**380**	**140**	**340**	**620**
24-PMW-4	**19.3**	**25.2**	NA	**31.1**	NA	NA	NA	**24**	**50**	**39**	**24**	**36**	**22**
24-PMW-5	**18.7**	**91.1**	NA	**27.3**	NA	NA	NA	**20**	**18**	**19**	**19**	**20**	**24**
24-PMW-8	NA	**41.6**	**30.8**	**67.7**	**38.2**	**33.4**	**25.9**	4.7	3	4.2	0.27	ND	ND
24-PMW-8-2	NA	NA	**33.4**	**42.3**	**30.7**	**28.6**	**27.4**	**7**	**7.2**	**27**	**17**	**16**	ND
24-PIW-8-1	NA	NA	NA	NA	NA	NA	NA	**29**	1.7	**10**	**12**	1.7	ND
24-PIW-8-2	NA	NA	**44**	**12.9**	2.6	**13.6**	3.3	**65**	**20**	**18**	**12**	1.8	0.79
24-PMW-9	NA	ND	NA	DRY	NA	NA	NA	DRY	DRY	**10**	**6.9**	**10**	**7.6**
24-PMW-10	NA	0.52	NA	**10.8**	NA	NA	NA	**7.6**	3.6	4.4	3.4	**21**	**22**
24-PMW-11	NA	1.3	NA	1.3	NA	NA	NA	1	1.6	1.8	0.85	1.4*	1.6
24-PMW-13	NA	1.1	NA	0.74	NA	NA	NA	DRY	1.2	2.5	0.26	2.7	2
24-PMW-18	NA	**108,000**	NA	**185,000**	NA	NA	NA	**24,000**	**78,000**	**92,000**	**61,000**	**83,000**	**47,000**
24-PMW-19	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-PMW-21	NA	NA	NA	**38.1**	NA	NA	NA	**34**	**36**	**38**	**41**	**36**	**49**
24-PMW-22	NA	NA	NA	**8,940**	NA	NA	NA	**660**	**15,000**	**17,000**	**20,000**	**23,000**	**28,000**
24-PMW-26	NA	NA	NA	ND	NA	NA	NA	ND	3.9	0.67	0.21	0.94	4.4
Intermediate Zone Wells													
24-MW-2	**10.3**	**8.1**	NA	**14.5**	NA	NA	NA	**19**	**27**	**15**	**12**	**12***	**13**
24-MW-3A	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-4A	NA	NA	NA	DRY	NA	NA	NA	DRY	DRY	DRY	DRY	DRY	DRY
24-MW-5A	3.67	**37.7**	NA	**5.1**	NA	NA	NA	**17**	4.1	3.6	**5.8**	4.8	4.2
24-MW-6	NA	NA	NA	0.3	NA	NA	NA	DRY	DRY	DRY	DRY	DRY	DRY
24-MW-7	ND	ND	NA	ND	NA	NA	NA	DRY	DRY	DRY	DRY	DRY	DRY
24-MW-8A	NA	**6.9**	NA	**10.2**	NA	NA	NA	**18**	**14**	**14**	**12**	**11**	**27**
24-MW-8A-2	NA	NA	**27.3**	**47.3**	**37.9**	**34.1**	**29.5**	**47**	**52**	**38**	**40**	**27**	**25**
24-MW-9A	NA	1.4	NA	0.48	NA	NA	NA	4.7	1.4	1.4	1.1	4.9	3.5*
24-MW-10A	NA	0.42	NA	0.32	NA	NA	NA	1.6	0.48	1.3	0.85	3.5	1.7
24-MW-11A	NA	ND	NA	ND	NA	NA	NA	1.6	**62**	3.1	0.55	**10**	1.9
24-MW-12A	NA	ND	NA	ND	NA	NA	NA	ND	**6.8**	0.82	ND	ND*	ND
24-MW-13A	NA	**60.1**	NA	DRY	NA	NA	NA	DRY	DRY	DRY	DRY	DRY	DRY
24-MW-14A	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-15A	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	**15**
24-MW-22A	NA	NA	NA	**32.1**	NA	NA	NA	**24**	**33**	**39**	**36**	**47**	**48***
24-MW-26A	NA	NA	NA	**1,990**	NA	NA	NA	**2,500**	**3,300**	**3,000**	**3,500**	**1,600**	**2,900**
24-MW-28A	NA	NA	NA	**27.6**	NA	NA	NA	**48**	**31**	**46**	**39**	**30**	**26**
24-MW-29A	NA	NA	NA	**37.6**	NA	NA	NA	4.5	**38**	**37**	**32**	**21**	**19**
24-MW-30A	NA	NA	NA	0.49	NA	NA	NA	ND	ND	0.86	ND	0.64	1.4
Deep Zone Wells													
24-MW-3B	ND	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND*
24-MW-4B	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-MW-5B	**8.22**	**59.1**	NA	**18.3**	NA	NA	NA	NA	**19**	**18**	**16**	**12**	**25**
24-MW-8B	NA	**25.9**	NA	**42.4**	NA	NA	NA	**33**	**51**	**44**	**40**	**43**	**41**
24-MW-9B	NA	ND	NA	0.32	NA	NA	NA	0.6	0.27	0.33	0.21	0.78	0.73*
24-MW-10B	NA	**45.0**	NA	**76.1**	NA	NA	NA	**52**	**100**	**80**	**82**	**93***	**93**
24-MW-11B	NA	0.32	NA	0.31	NA	NA	NA	0.29	0.81	0.35	ND	0.83	0.81
24-MW-12B	NA	ND	NA	ND	NA	NA	NA	ND	0.42	ND	ND	ND*	ND
24-MW-13B	NA	**98.1**	NA	**306**	NA	NA	NA	**370**	**470**	**460**	**620**	**590**	**660**
24-MW-14B	NA	**8.3**	NA	**13**	NA	NA	NA	**14**	**24**	**14**	**18**	**22***	**17**
24-MW-15B	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-MW-16B	NA	1.1	NA	ND	NA	NA	NA	ND	ND	ND	ND	**68**	**13**
24-MW-17B	NA	1.4	NA	2.8	NA	NA	NA	4	**5.4**	**5.5**	4.4	4.7*	5
24-MW-19B	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	0.91
24-MW-20B	NA	NA	NA	**16.7**	NA	NA	NA	**34**	**50**	**69**	**100**	**20**	**13**
24-MW-21B	NA	NA	NA	1.3	NA	NA	NA	0.55	2.4	ND	1.9	ND	ND
24-MW-22B	NA	NA	NA	**7.7**	NA	NA	NA	**30**	**8.7**	4.4	**5.6**	**5.2**	4.5
24-MW-23B	NA	NA	NA	2.5	NA	NA	NA	ND	ND	**7.2**	**9.4**	**12***	**14**
24-MW-24B	NA	NA	NA	ND	NA	NA	NA	ND	2.4	0.52	0.22	ND*	ND
24-MW-25B	NA	ND	NA	ND	NA	NA	NA	ND	ND	0.44	0.54	ND*	ND
24-MW-26B	NA	NA	NA	**8.8**	NA	NA	NA	**33**	**58**	**65**	**65**	**45**	**72**
24-MW-27B	NA	NA	NA	**72.2**	NA	NA	NA	3.1	**86**	**83**	**66**	**43**	**33**
24-MW-31B	NA	NA	NA	ND	NA	NA	NA	DRY	DRY	DRY	DRY	DRY	DRY

Table 8
Summary of Key Contaminants of Concern
IRP Site 24 (Entomology Wash Rack)
Vandenberg AFB, California

	TCE [b] (µg/L)												
Sample Location	**May-01**	**Dec-02**	**Oct-03**	**Nov-03/ Dec-03**	**Jan-04**	**Aug-04**	**Dec-04**	**Fall-04**	**Win-05**	**Spr-05**	**Sum-05**	**Fall-05**	**Win-06**
Shallow Zone Wells													
24-PMW-1	**10.6**	**16.8**	NA	**8.1**	NA	NA	NA	**6.8**	**9.5**	**15**	**7.3**	**8.2**	**9.9***
24-PMW-2	**355**	**230**	NA	**248**	NA	NA	NA	**190**	**300**	**290**	**220**	**220**	**250**
24-PMW-3	**16.2**	**24.4**	NA	**28.3**	NA	NA	NA	**26**	**72**	**41**	**17**	**44**	**55**
24-PMW-4	**164**	**147**	NA	**167**	NA	NA	NA	**120**	**62**	**79**	**80**	**110**	**160**
24-PMW-5	**84.3**	**84.4**	NA	**50**	NA	NA	NA	**52**	**45**	**54**	**33**	**130**	**120**
24-PMW-8	NA	**758**	**399**	**595**	**417**	**759**	**342**	4.4	**15**	**53**	4.8	1.8	**18**
24-PMW-8-2	NA	NA	**393**	**358**	**287**	**586**	**293**	3	**55**	**540**	**420**	**190**	**11**
24-PIW-8-1	NA	NA	NA	NA	NA	NA	NA	**150**	**18**	**110**	**180**	**30**	**11**
24-PIW-8-2	NA	NA	**348**	**330**	**57.3**	**281**	**107**	**260**	**320**	**300**	**380**	**61**	**25**
24-PMW-9	NA	ND	NA	DRY	NA	NA	NA	DRY	DRY	2.6	2	1.4	2.1
24-PMW-10	NA	0.49	NA	3.8	NA	NA	NA	2	1.8	0.82	2	1	2.8
24-PMW-11	NA	1.0	NA	0.53	NA	NA	NA	0.57	0.25	0.33	0.46	0.24*	0.23
24-PMW-13	NA	0.51	NA	ND	NA	NA	NA	DRY	0.61	0.69	ND	0.75	0.81
24-PMW-18	NA	**61.2**	NA	**72.8**	NA	NA	NA	**76**	**62**	**72**	**82**	ND[k]	**67**
24-PMW-19	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-PMW-21	NA	NA	NA	1.1	NA	NA	NA	1	1.5	1.3	1.2	1.2	2.1
24-PMW-22	NA	NA	NA	**23.8**	NA	NA	NA	**5.6**	**65**	ND	**42**	**49**	**69**
24-PMW-26	NA	NA	NA	ND	NA	NA	NA	ND	0.52	ND	ND	ND	0.22
Intermediate Zone Wells													
24-MW-2	**45.7**	**50.7**	NA	**125**	NA	NA	NA	**150**	**210**	**130**	**97**	**61***	**67**
24-MW-3A	NA	ND	NA	ND	NA	NA	NA	ND	**6.5**	ND	ND	ND	ND
24-MW-4A	NA	NA	NA	DRY	NA	NA	NA	DRY	DRY	DRY	DRY	DRY	DRY
24-MW-5A	**164**	**127**	NA	**89.6**	NA	NA	NA	**29**	**95**	**190**	**140**	**120**	**180**
24-MW-6	NA	NA	NA	ND	NA	NA	NA	DRY	DRY	DRY	DRY	DRY	DRY
24-MW-7	4.0	**11.6**	NA	**9.9**	NA	NA	NA	DRY	DRY	DRY	DRY	DRY	DRY
24-MW-8A	NA	**271**	NA	**381**	NA	NA	NA	**270**	**410**	**430**	**440**	**300**	**280**
24-MW-8A-2	NA	NA	**397**	**452**	**365**	**688**	**349**	**900**	**960**	**610**	**930**	**500**	**280**
24-MW-9A	NA	**8.3**	NA	4.7	NA	NA	NA	**9.3**	**13**	**13**	**12**	**13**	**16***
24-MW-10A	NA	ND	NA	ND	NA	NA	NA	0.24	0.81	ND	4	ND	ND
24-MW-11A	NA	ND	NA	0.71	NA	NA	NA	0.98	**20**	1.1	0.69	0.73	0.8
24-MW-12A	NA	ND	NA	ND	NA	NA	NA	ND	0.25	ND	0.26	ND*	ND
24-MW-13A	NA	1.3	NA	DRY	NA	NA	NA	DRY	DRY	DRY	DRY	DRY	DRY
24-MW-14A	NA	ND	NA	ND	NA	NA	NA	1.4	0.63	2.4	0.38	0.24	ND
24-MW-15A	NA	2.0	NA	ND	NA	NA	NA	ND	ND	1.1	0.26	ND	**9.5**
24-MW-22A	NA	NA	NA	ND	NA	NA	NA	0.64	0.35	0.27	0.23	0.27	0.3*
24-MW-26A	NA	NA	NA	**17.9**	NA	NA	NA	**17**	**28**	**20**	**23**	**11**	**16**
24-MW-28A	NA	NA	NA	ND	NA	NA	NA	0.29	0.26	0.53	0.4	0.23	0.43
24-MW-29A	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-30A	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
Deep Zone Wells													
24-MW-3B	2.23	0.97	NA	1.6	NA	NA	NA	0.3	**8.8**	3.6	1.9	1.8	1.6*
24-MW-4B	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-MW-5B	**20.2**	**32.8**	NA	**35.9**	NA	NA	NA	NA	**39**	**38**	**31**	**28**	**42**
24-MW-8B	NA	**522**	NA	**773**	NA	NA	NA	**620**	**730**	**690**	**660**	**640**	**560**
24-MW-9B	NA	2.2	NA	**8.4**	NA	NA	NA	2.2	1.9	4.4	3.2	3.6	**10***
24-MW-10B	NA	0.50	NA	0.53	NA	NA	NA	0.64	0.73	0.96	1.3	1.1*	1.2
24-MW-11B	NA	0.36	NA	ND	NA	NA	NA	0.37	0.72	0.45	0.34	0.34	0.45
24-MW-12B	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-MW-13B	NA	**10.9**	NA	4.7	NA	NA	NA	**8.2**	**6.6**	**6**	**5.1**	**6.1**	**7.4**
24-MW-14B	NA	**672**	NA	**908**	NA	NA	NA	**690**	**1,400**	**910**	**1,000**	**1,000***	**1,100**
24-MW-15B	NA	ND	NA	ND	NA	NA	NA	ND	1.2	ND	0.59	ND*	ND
24-MW-16B	NA	1.3	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	0.21
24-MW-17B	NA	**82.1**	NA	**131**	NA	NA	NA	**130**	**180**	**130**	**110**	**110***	**110**
24-MW-19B	NA	NA	NA	3.2	NA	NA	NA	2.5	4.2	4.1	2.9	3..3*	4.1
24-MW-20B	NA	NA	NA	0.98	NA	NA	NA	2.2	4.4	3.3	4.6	4.5	**6.3**
24-MW-21B	NA	NA	NA	**11.1**	NA	NA	NA	**7.5**	4.1	**10**	**9.7**	3	**5.6**
24-MW-22B	NA	NA	NA	2.6	NA	NA	NA	1.1	0.35	0.94	1.4	2.3	4
24-MW-23B	NA	NA	NA	**86.4**	NA	NA	NA	1.8	2.2	**100**	**120**	**140***	**170**
24-MW-24B	NA	NA	NA	ND	NA	NA	NA	ND	0.25	ND	ND	ND*	ND
24-MW-25B	NA	ND	NA	ND	NA	NA	NA	2.4	2	ND	**7.4**	ND*	ND
24-MW-26B	NA	NA	NA	ND	NA	NA	NA	0.22	0.35	0.42	0.41	0.32	0.51
24-MW-27B	NA	NA	NA	0.78	NA	NA	NA	ND	1.3	1	1	0.48	0.37
24-MW-31B	NA	NA	NA	2.5	NA	NA	NA	DRY	DRY	DRY	DRY	DRY	DRY

Table 8
Summary of Key Contaminants of Concern
IRP Site 24 (Entomology Wash Rack)
Vandenberg AFB, California

	cis-1,2-DCE [c] (µg/L)												
Sample Location	**May-01**	**Dec-02**	**Oct-03**	**Nov-03/ Dec-03**	**Jan-04**	**Aug-04**	**Dec-04**	**Fall-04**	**Win-05**	**Spr-05**	**Sum-05**	**Fall-05**	**Win-06**
Shallow Zone Wells													
24-PMW-1	ND	ND	NA	4.0	NA	NA	NA	ND	5.4	5.5	ND	ND	4.6*
24-PMW-2	ND	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-PMW-3	**14.4**	**37**	NA	**103**	NA	NA	NA	**12**	**37**	**28**	**18**	**18**	**20**
24-PMW-4	2.44	3.1	NA	2.0	NA	NA	NA	1.2	0.84	1.2	0.96	1.4	2.1
24-PMW-5	2.37	2.3	NA	1.1	NA	NA	NA	1.1	1.5	1.6	1.8	2.2	2.8
24-PMW-8	NA	**154**	**90.8**	**125**	**87.1**	**109**	**111**	**340**	**73**	**92**	**170**	**130**	**65**
24-PMW-8-2	NA	NA	**190**	**156**	**127**	**227**	**171**	**540**	**14**	**120**	**110**	**50**	**80**
24-PIW-8-1	NA	NA	NA	NA	NA	NA	NA	**24**	1.7	**9.4**	**16**	**10**	1.3
24-PIW-8-2	NA	NA	**56.4**	**30.7**	**6.2**	**63.0**	**13.7**	**43**	**43**	**34**	**34**	**11**	ND
24-PMW-9	NA	ND	NA	DRY	NA	NA	NA	DRY	DRY	ND	ND	ND	ND
24-PMW-10	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-PMW-11	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-PMW-13	NA	ND	NA	ND	NA	NA	NA	DRY	ND	0.21	ND	ND	0.21
24-PMW-18	NA	**18.7**	NA	**23.8**	NA	NA	NA	**74**	**35**	**31**	**94**	ND[k]	**42**
24-PMW-19	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-PMW-21	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-PMW-22	NA	NA	NA	4.0	NA	NA	NA	0.5	**7.7**	**8.7**	**9.1**	ND[k]	**9.6**
24-PMW-26	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
Intermediate Zone Wells													
24-MW-2	0.193	ND	NA	0.62	NA	NA	NA	1.2	1.8	0.53	0.49	0.26*	0.27
24-MW-3A	NA	ND	NA	ND	NA	NA	NA	ND	0.3	ND	ND	ND	ND
24-MW-4A	NA	NA	NA	DRY	NA	NA	NA	DRY	DRY	DRY	DRY	DRY	DRY
24-MW-5A	2.67	1.2	NA	0.89	NA	NA	NA	**9.5**	1.3	2	1.7	1.6	2
24-MW-6	NA	NA	NA	ND	NA	NA	NA	DRY	DRY	DRY	DRY	DRY	DRY
24-MW-7	ND	ND	NA	ND	NA	NA	NA	DRY	DRY	DRY	DRY	DRY	DRY
24-MW-8A	NA	**13.7**	NA	**18.1**	NA	NA	NA	**8.9**	**14**	**13**	**14**	**13**	**17**
24-MW-8A-2	NA	NA	**94.1**	**108**	**95.5**	**124**	**127**	**110**	**120**	**82**	**100**	**86**	**55**
24-MW-9A	NA	0.30	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND*
24-MW-10A	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-11A	NA	ND	NA	ND	NA	NA	NA	ND	1.2	ND	ND	ND	ND
24-MW-12A	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-MW-13A	NA	ND	NA	DRY	NA	NA	NA	DRY	DRY	DRY	DRY	DRY	DRY
24-MW-14A	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-15A	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	0.77
24-MW-22A	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND*
24-MW-26A	NA	NA	NA	**13.2**	NA	NA	NA	**12**	**15**	**11**	**12**	**6.5**	**9.8**
24-MW-28A	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-29A	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-30A	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
Deep Zone Wells													
24-MW-3B	ND	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND*
24-MW-4B	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-MW-5B	**21.1**	**14.4**	NA	**12.7**	NA	NA	NA	NA	**13**	**12**	**14**	**21**	**18**
24-MW-8B	NA	**75.2**	NA	**62.4**	NA	NA	NA	**66**	**76**	**65**	**59**	**61**	**64**
24-MW-9B	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND*
24-MW-10B	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-MW-11B	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-12B	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-MW-13B	NA	2.5	NA	0.64	NA	NA	NA	0.82	0.25	0.31	0.24	0.31	0.33
24-MW-14B	NA	1.3	NA	2.5	NA	NA	NA	2.7	4	2.6	3.3	4.2*	3.2
24-MW-15B	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-MW-16B	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-17B	NA	0.67	NA	1.4	NA	NA	NA	1.5	1.9	1.7	1.2	1.4*	1.2
24-MW-19B	NA	NA	NA	**8.7**	NA	NA	NA	6	**9.4**	**8.6**	**7.1**	**10***	**8.9**
24-MW-20B	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	0.46	**7.3**	1.1
24-MW-21B	NA	NA	NA	1.1	NA	NA	NA	**12**	0.74	**13**	**15**	**22**	**12**
24-MW-22B	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	2.1	2.7	**8.4**
24-MW-23B	NA	NA	NA	ND	NA	NA	NA	ND	ND	0.64	0.86	1.1*	1.4
24-MW-24B	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-MW-25B	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-MW-26B	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-27B	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-31B	NA	NA	NA	ND	NA	NA	NA	DRY	DRY	DRY	DRY	DRY	DRY

Table 8
Summary of Key Contaminants of Concern
IRP Site 24 (Entomology Wash Rack)
Vandenberg AFB, California

	Vinyl chloride [g] (µg/L)												
Sample Location	**May-01**	**Dec-02**	**Oct-03**	**Nov-03/ Dec-03**	**Jan-04**	**Aug-04**	**Dec-04**	**Fall-04**	**Win-05**	**Spr-05**	**Sum-05**	**Fall-05**	**Win-06**
Shallow Zone Wells													
24-PMW-1	ND	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	**3.6***
24-PMW-2	ND	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-PMW-3	ND	**0.66**	NA	**3.3**	NA	NA	NA	**120**	**22**	**65**	**66**	**24**	**17**
24-PMW-4	ND	ND	NA	ND	NA	NA	NA	**20**	**11**	**0.6**	ND	ND	**10**
24-PMW-5	ND	ND	NA	ND	NA	NA	NA	ND	0.5	0.21	**3.1**	**9.6**	**2.3**
24-PMW-8	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**9.5**	ND
24-PMW-8-2	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
24-PIW-8-1	NA	NA	NA	NA	NA	NA	NA	ND	**0.56**	0.2	ND	ND	ND
24-PIW-8-2	NA	NA	ND	ND	ND	ND	ND	ND	**5.5**	0.27	**0.66**	ND	ND
24-PMW-9	NA	ND	NA	DRY	NA	NA	NA	DRY	DRY	ND	ND	ND	ND
24-PMW-10	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-PMW-11	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-PMW-13	NA	ND	NA	ND	NA	NA	NA	DRY	ND	ND	ND	ND	ND
24-PMW-18	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-PMW-19	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-PMW-21	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-PMW-22	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-PMW-26	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
Intermediate Zone Wells													
24-MW-2	ND	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-MW-3A	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-4A	NA	NA	NA	DRY	NA	NA	NA	DRY	DRY	DRY	DRY	DRY	DRY
24-MW-5A	ND	ND	NA	ND	NA	NA	NA	**0.79**	ND	ND	ND	ND	ND
24-MW-6	NA	NA	NA	ND	NA	NA	NA	DRY	DRY	DRY	DRY	DRY	DRY
24-MW-7	ND	ND	NA	ND	NA	NA	NA	DRY	DRY	DRY	DRY	DRY	DRY
24-MW-8A	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-8A-2	NA	NA	ND	ND	ND	ND	ND	ND	0.21	ND	ND	ND	ND
24-MW-9A	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND*
24-MW-10A	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-11A	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-12A	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-MW-13A	NA	ND	NA	DRY	NA	NA	NA	DRY	DRY	DRY	DRY	DRY	DRY
24-MW-14A	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-15A	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-22A	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND*
24-MW-26A	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-28A	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-29A	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-30A	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
Deep Zone Wells													
24-MW-3B	ND	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND*
24-MW-4B	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-MW-5B	ND	ND	NA	ND	NA	NA	NA	NA	0.42	0.29	**0.8**	**3.6**	**2.8**
24-MW-8B	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-9B	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND*
24-MW-10B	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-MW-11B	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-12B	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-MW-13B	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-14B	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-MW-15B	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-MW-16B	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-17B	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-MW-19B	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-MW-20B	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-21B	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-22B	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-23B	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-MW-24B	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-MW-25B	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-MW-26B	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-27B	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-31B	NA	NA	NA	ND	NA	NA	NA	DRY	DRY	DRY	DRY	DRY	DRY

Table 8
Summary of Key Contaminants of Concern
IRP Site 24 (Entomology Wash Rack)
Vandenberg AFB, California

	1,1-DCE [d] (µg/L)												
Sample Location	**May-01**	**Dec-02**	**Oct-03**	**Nov-03/ Dec-03**	**Jan-04**	**Aug-04**	**Dec-04**	**Fall-04**	**Win-05**	**Spr-05**	**Sum-05**	**Fall-05**	**Win-06**
Shallow Zone Wells													
24-PMW-1	**104**	**55.2**	NA	**66.7**	NA	NA	NA	**45**	**37**	**50**	**57**	**44**	**83***
24-PMW-2	1.49	1.3	NA	ND	NA	NA	NA	0.9	1.5	1	0.93	0.74	0.67
24-PMW-3	5.93	**8.2**	NA	5.2	NA	NA	NA	3.1	5.5	3.3	0.98	2.2	4.1
24-PMW-4	**161**	**192**	NA	**385**	NA	NA	NA	**400**	**470**	**350**	**200**	**290**	**200**
24-PMW-5	**173**	**192**	NA	**278**	NA	NA	NA	**250**	**220**	**220**	**170**	**220**	**140**
24-PMW-8	NA	0.72	ND	ND	ND	ND	ND	0.54	0.21	0.38	0.29	ND	ND
24-PMW-8-2	NA	NA	0.44	ND	ND	ND	0.38	1.1	ND	0.29	0.25	0.28	ND
24-PIW-8-1	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-PIW-8-2	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	0.25	ND	ND
24-PMW-9	NA	ND	NA	DRY	NA	NA	NA	DRY	DRY	ND	ND	ND	ND
24-PMW-10	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-PMW-11	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-PMW-13	NA	ND	NA	ND	NA	NA	NA	DRY	ND	ND	ND	ND	ND
24-PMW-18	NA	2.9	NA	3.1	NA	NA	NA	1.6	1.8	ND	1.4	ND	0.77
24-PMW-19	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-PMW-21	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-PMW-22	NA	NA	NA	ND	NA	NA	NA	ND	0.85	0.67	0.73	ND	0.85
24-PMW-26	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
Intermediate Zone Wells													
24-MW-2	ND	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-MW-3A	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-4A	NA	NA	NA	DRY	NA	NA	NA	DRY	DRY	DRY	DRY	DRY	DRY
24-MW-5A	**89.2**	**81**	NA	**55.7**	NA	NA	NA	**670**	**73**	**66**	**94**	**67**	**62**
24-MW-6	NA	NA	NA	1.0	NA	NA	NA	DRY	DRY	DRY	DRY	DRY	DRY
24-MW-7	0.63	2.0	NA	1.8	NA	NA	NA	DRY	DRY	DRY	DRY	DRY	DRY
24-MW-8A	NA	1.6	NA	ND	NA	NA	NA	0.22	0.47	0.24	ND	ND	ND
24-MW-8A-2	NA	NA	ND	ND	ND	ND	ND	0.26	0.31	ND	0.2	ND	ND
24-MW-9A	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND*
24-MW-10A	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-11A	NA	ND	NA	ND	NA	NA	NA	0.9	0.4	ND	ND	ND	ND
24-MW-12A	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-MW-13A	NA	ND	NA	DRY	NA	NA	NA	DRY	DRY	DRY	DRY	DRY	DRY
24-MW-14A	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-15A	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-22A	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND*
24-MW-26A	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-28A	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-29A	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-30A	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
Deep Zone Wells													
24-MW-3B	ND	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND*
24-MW-4B	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-MW-5B	**529**	**771**	NA	**820**	NA	NA	NA	NA	**880**	**580**	**590**	**540**	**520**
24-MW-8B	NA	0.58	NA	0.76	NA	NA	NA	0.53	ND	0.57	0.6	0.66	0.52
24-MW-9B	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND*
24-MW-10B	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-MW-11B	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-12B	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-MW-13B	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-14B	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-MW-15B	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-MW-16B	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-17B	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-MW-19B	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-MW-20B	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-21B	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-22B	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-23B	NA	NA	NA	ND	NA	NA	NA	ND	ND	0.26	0.23	0.28*	0.3
24-MW-24B	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-MW-25B	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-MW-26B	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-27B	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-31B	NA	NA	NA	ND	NA	NA	NA	DRY	DRY	DRY	DRY	DRY	DRY

Table 8
Summary of Key Contaminants of Concern
IRP Site 24 (Entomology Wash Rack)
Vandenberg AFB, California

	1,1,1-TCA [e] (µg/L)												
Sample Location	**May-01**	**Dec-02**	**Oct-03**	**Nov-03/ Dec-03**	**Jan-04**	**Aug-04**	**Dec-04**	**Fall-04**	**Win-05**	**Spr-05**	**Sum-05**	**Fall-05**	**Win-06**
Shallow Zone Wells													
24-PMW-1	ND	7.2	NA	5.7	NA	NA	NA	0.57	3	2.4	3	ND	1*
24-PMW-2	ND	1.6	NA	ND	NA	NA	NA	ND	ND	ND	1.1	ND	0.23
24-PMW-3	12.4	8.6	NA	5.3	NA	NA	NA	0.89	1	0.89	ND	0.21	0.42
24-PMW-4	**684**	**757**	NA	**1,370**	NA	NA	NA	**1,700**	**5,000**	**2,600**	**1,100**	**1,300**	**620**
24-PMW-5	**886**	**794**	NA	**2,200**	NA	NA	NA	**1,500**	**1,500**	**1,300**	**1,800**	**480**	180
24-PMW-8	NA	ND	ND	ND	ND	ND	ND	ND	ND	1.3	0.31	ND	ND
24-PMW-8-2	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
24-PIW-8-1	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-PIW-8-2	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
24-PMW-9	NA	ND	NA	DRY	NA	NA	NA	DRY	DRY	ND	ND	ND	ND
24-PMW-10	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-PMW-11	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-PMW-13	NA	ND	NA	ND	NA	NA	NA	DRY	ND	ND	ND	ND	ND
24-PMW-18	NA	0.30	NA	0.3	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-PMW-19	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-PMW-21	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-PMW-22	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-PMW-26	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
Intermediate Zone Wells													
24-MW-2	ND	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-MW-3A	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-4A	NA	NA	NA	DRY	NA	NA	NA	DRY	DRY	DRY	DRY	DRY	DRY
24-MW-5A	195	156	NA	127	NA	NA	NA	77	65	80	62	65	66
24-MW-6	NA	NA	NA	1.3	NA	NA	NA	DRY	DRY	DRY	DRY	DRY	DRY
24-MW-7	ND	ND	NA	ND	NA	NA	NA	DRY	DRY	DRY	DRY	DRY	DRY
24-MW-8A	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-8A-2	NA	NA	ND	ND	ND	0.42	ND	ND	ND	ND	ND	ND	ND
24-MW-9A	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND*
24-MW-10A	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-11A	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-12A	NA	ND	NA	ND	NA	NA	NA	0.29	ND	ND	ND	ND*	ND
24-MW-13A	NA	ND	NA	DRY	NA	NA	NA	DRY	DRY	DRY	DRY	DRY	DRY
24-MW-14A	NA	ND	NA	ND	NA	NA	NA	ND	0.59	ND	ND	ND	ND
24-MW-15A	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-22A	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND*
24-MW-26A	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-28A	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-29A	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-30A	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
Deep Zone Wells													
24-MW-3B	ND	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND*
24-MW-4B	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-MW-5B	101	136	NA	136	NA	NA	NA	NA	110	95	95	83	66
24-MW-8B	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-9B	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND*
24-MW-10B	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-MW-11B	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-12B	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-MW-13B	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-14B	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-MW-15B	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-MW-16B	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-17B	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-MW-19B	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-MW-20B	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-21B	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-22B	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-23B	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-MW-24B	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-MW-25B	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-MW-26B	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-27B	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-31B	NA	NA	NA	ND	NA	NA	NA	DRY	DRY	DRY	DRY	DRY	DRY

Table 8
Summary of Key Contaminants of Concern
IRP Site 24 (Entomology Wash Rack)
Vandenberg AFB, California

	1,1,2-TCA [f] (µg/L)												
Sample Location	**May-01**	**Dec-02**	**Oct-03**	**Nov-03/ Dec-03**	**Jan-04**	**Aug-04**	**Dec-04**	**Fall-04**	**Win-05**	**Spr-05**	**Sum-05**	**Fall-05**	**Win-06**
Shallow Zone Wells													
24-PMW-1	ND	ND	NA	ND	NA	NA	NA	ND	**10**	**38**	**12**	ND	**9.8***
24-PMW-2	ND	ND	NA	ND	NA	NA	NA	ND	1.2	0.46	ND	ND	ND
24-PMW-3	ND	ND	NA	ND	NA	NA	NA	ND	0.36	0.39	ND	ND	0.21
24-PMW-4	1.73	3.5	NA	**5.4**	NA	NA	NA	**9.9**	**17**	**11**	**6.3**	**5.7**	4.9
24-PMW-5	2.16	3.1	NA	**10.8**	NA	NA	NA	**13**	**16**	**12**	**12**	4.1	2.7
24-PMW-8	NA	ND	ND	0.76	0.49	0.33	0.5	ND	ND	ND	ND	ND	ND
24-PMW-8-2	NA	NA	ND	ND	ND	0.31	ND	ND	ND	0.21	ND	ND	ND
24-PIW-8-1	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-PIW-8-2	NA	NA	0.63	ND	ND	ND	ND	ND	ND	0.21	0.63	ND	ND
24-PMW-9	NA	ND	NA	DRY	NA	NA	NA	DRY	DRY	ND	ND	ND	ND
24-PMW-10	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-PMW-11	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-PMW-13	NA	ND	NA	ND	NA	NA	NA	DRY	ND	ND	ND	ND	ND
24-PMW-18	NA	ND	NA	ND	NA	NA	NA	0.43	0.81	ND	0.47	ND	0.66
24-PMW-19	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-PMW-21	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-PMW-22	NA	NA	NA	ND	NA	NA	NA	ND	0.5	0.55	0.42	ND	ND
24-PMW-26	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
Intermediate Zone Wells													
24-MW-2	ND	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-MW-3A	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-4A	NA	NA	NA	DRY	NA	NA	NA	DRY	DRY	DRY	DRY	DRY	DRY
24-MW-5A	ND	0.58	NA	0.63	NA	NA	NA	4.6	0.82	1	0.96	0.84	1
24-MW-6	NA	NA	NA	ND	NA	NA	NA	DRY	DRY	DRY	DRY	DRY	DRY
24-MW-7	ND	ND	NA	ND	NA	NA	NA	DRY	DRY	DRY	DRY	DRY	DRY
24-MW-8A	NA	1.9	NA	ND	NA	NA	NA	0.28	0.38	0.35	ND	0.32	0.36
24-MW-8A-2	NA	NA	0.37	ND	ND	0.47	ND	0.64	0.68	0.48	0.64	0.47	0.31
24-MW-9A	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND*
24-MW-10A	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-11A	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-12A	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-MW-13A	NA	ND	NA	DRY	NA	NA	NA	DRY	DRY	DRY	DRY	DRY	DRY
24-MW-14A	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-15A	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-22A	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND*
24-MW-26A	NA	NA	NA	ND	NA	NA	NA	0.37	0.57	0.38	0.47	0.22	0.3
24-MW-28A	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-29A	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-30A	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
Deep Zone Wells													
24-MW-3B	ND	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND*
24-MW-4B	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-MW-5B	2.64	**5**	NA	4.2	NA	NA	NA	NA	**6**	**5.4**	**5.1**	3.8	**6.2**
24-MW-8B	NA	ND	NA	ND	NA	NA	NA	0.41	ND	0.5	0.55	0.46	0.45
24-MW-9B	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND*
24-MW-10B	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-MW-11B	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-12B	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-MW-13B	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-14B	NA	ND	NA	ND	NA	NA	NA	0.51	0.67	0.59	0.88	0.7*	0.54
24-MW-15B	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-MW-16B	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-17B	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-MW-19B	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-MW-20B	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-21B	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-22B	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-23B	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-MW-24B	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-MW-25B	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-MW-26B	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-27B	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-31B	NA	NA	NA	ND	NA	NA	NA	DRY	DRY	DRY	DRY	DRY	DRY

Table 8
Summary of Key Contaminants of Concern
IRP Site 24 (Entomology Wash Rack)
Vandenberg AFB, California

	1,1-DCA [b] (µg/L)												
Sample Location	**May-01**	**Dec-02**	**Oct-03**	**Nov-03/ Dec-03**	**Jan-04**	**Aug-04**	**Dec-04**	**Fall-04**	**Win-05**	**Spr-05**	**Sum-05**	**Fall-05**	**Win-06**
Shallow Zone Wells													
24-PMW-1	**31.1**	**18.6**	NA	**18**	NA	NA	NA	**15**	**21**	**24**	**18**	**19**	**15***
24-PMW-2	ND	ND	NA	ND	NA	NA	NA	ND	ND	ND	0.29	ND	ND
24-PMW-3	**5.92**	**5.8**	NA	4.3	NA	NA	NA	4.6	4.8	4.8	4	4	4.2
24-PMW-4	**154**	**247**	NA	**484**	NA	NA	NA	**880**	**1,500**	**970**	**600**	**610**	**510**
24-PMW-5	**192**	**192**	NA	**326**	NA	NA	NA	**320**	**310**	**300**	**280**	**210**	**110**
24-PMW-8	NA	0.45	ND	ND	ND	ND	ND	ND	ND	0.35	ND	ND	ND
24-PMW-8-2	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
24-PIW-8-1	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-PIW-8-2	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
24-PMW-9	NA	ND	NA	DRY	NA	NA	NA	DRY	DRY	ND	ND	ND	ND
24-PMW-10	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-PMW-11	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-PMW-13	NA	ND	NA	ND	NA	NA	NA	DRY	ND	ND	ND	ND	ND
24-PMW-18	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-PMW-19	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-PMW-21	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-PMW-22	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-PMW-26	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
Intermediate Zone Wells													
24-MW-2	ND	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-MW-3A	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-4A	NA	NA	NA	DRY	NA	NA	NA	DRY	DRY	DRY	DRY	DRY	DRY
24-MW-5A	**42.7**	**26.9**	NA	**23.9**	NA	NA	NA	**89**	**24**	**35**	**30**	**27**	**34**
24-MW-6	NA	NA	NA	ND	NA	NA	NA	DRY	DRY	DRY	DRY	DRY	DRY
24-MW-7	ND	ND	NA	ND	NA	NA	NA	DRY	DRY	DRY	DRY	DRY	DRY
24-MW-8A	NA	0.5	NA	0.42	NA	NA	NA	0.43	0.5	0.47	0.42	0.39	0.39
24-MW-8A-2	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
24-MW-9A	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND*
24-MW-10A	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-11A	NA	ND	NA	ND	NA	NA	NA	0.25	ND	ND	ND	ND	ND
24-MW-12A	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-MW-13A	NA	ND	NA	DRY	NA	NA	NA	DRY	DRY	DRY	DRY	DRY	DRY
24-MW-14A	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-15A	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-22A	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND*
24-MW-26A	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-28A	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-29A	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-30A	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
Deep Zone Wells													
24-MW-3B	ND	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND*
24-MW-4B	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-MW-5B	**68.3**	**78.5**	NA	**82**	NA	NA	NA	NA	**110**	**91**	**100**	**93**	**92**
24-MW-8B	NA	0.88	NA	0.97	NA	NA	NA	0.81	1.1	0.9	0.9	1	0.85
24-MW-9B	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND*
24-MW-10B	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-MW-11B	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-12B	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-MW-13B	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-14B	NA	ND	NA	ND	NA	NA	NA	ND	ND	0.2	ND	0.25*	ND
24-MW-15B	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-MW-16B	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-17B	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-MW-19B	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-MW-20B	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-21B	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-22B	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-23B	NA	NA	NA	ND	NA	NA	NA	ND	ND	0.35	0.38	0.43*	0.43
24-MW-24B	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-MW-25B	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-MW-26B	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-27B	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-31B	NA	NA	NA	ND	NA	NA	NA	DRY	DRY	DRY	DRY	DRY	DRY

Table 8
Summary of Key Contaminants of Concern
IRP Site 24 (Entomology Wash Rack)
Vandenberg AFB, California

	1,2-DCA[1] (µg/L)												
Sample Location	**May-01**	**Dec-02**	**Oct-03**	**Nov-03/ Dec-03**	**Jan-04**	**Aug-04**	**Dec-04**	**Fall-04**	**Win-05**	**Spr-05**	**Sum-05**	**Fall-05**	**Win-06**
Shallow Zone Wells													
24-PMW-1	**396**	**169**	NA	**220**	NA	NA	NA	**270**	**220**	**15**	**260**	**260**	**310***
24-PMW-2	ND	**4.4**	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-PMW-3	ND	**0.58**	NA	**0.81**	NA	NA	NA	**1.7**	**1.7**	**1.3**	**4.1**	**0.61**	**1**
24-PMW-4	ND	ND	NA	**2.3**	NA	NA	NA	**3.2**	**6.5**	**3.9**	**1.8**	**1.9**	**1.7**
24-PMW-5	ND	ND	NA	**1.8**	NA	NA	NA	**2**	**2.1**	**1.8**	**1.5**	**0.64**	0.44
24-PMW-8	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
24-PMW-8-2	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
24-PIW-8-1	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-PIW-8-2	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
24-PMW-9	NA	ND	NA	DRY	NA	NA	NA	DRY	DRY	ND	ND	ND	ND
24-PMW-10	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-PMW-11	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-PMW-13	NA	ND	NA	ND	NA	NA	NA	DRY	ND	ND	ND	ND	ND
24-PMW-18	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-PMW-19	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-PMW-21	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-PMW-22	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-PMW-26	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
Intermediate Zone Wells													
24-MW-2	ND	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-MW-3A	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-4A	NA	NA	NA	DRY	NA	NA	NA	DRY	DRY	DRY	DRY	DRY	DRY
24-MW-5A	**0.845**	ND	NA	ND	NA	NA	NA	**6.9**	**0.53**	**0.65**	**0.68**	**0.53**	**0.64**
24-MW-6	NA	NA	NA	ND	NA	NA	NA	DRY	DRY	DRY	DRY	DRY	DRY
24-MW-7	ND	ND	NA	ND	NA	NA	NA	DRY	DRY	DRY	DRY	DRY	DRY
24-MW-8A	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-8A-2	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
24-MW-9A	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND*
24-MW-10A	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-11A	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-12A	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-MW-13A	NA	ND	NA	DRY	NA	NA	NA	DRY	DRY	DRY	DRY	DRY	DRY
24-MW-14A	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-15A	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-22A	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND*
24-MW-26A	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-28A	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-29A	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-30A	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
Deep Zone Wells													
24-MW-3B	ND	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND*
24-MW-4B	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-MW-5B	**8.57**	**6.5**	NA	**8.9**	NA	NA	NA	NA	**9.3**	**8.8**	**8.8**	**7.2**	**9.4**
24-MW-8B	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-9B	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND*
24-MW-10B	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-MW-11B	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-12B	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-MW-13B	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-14B	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-MW-15B	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-MW-16B	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-17B	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-MW-19B	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-MW-20B	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-21B	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-22B	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-23B	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-MW-24B	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-MW-25B	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-MW-26B	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-27B	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-31B	NA	NA	NA	ND	NA	NA	NA	DRY	DRY	DRY	DRY	DRY	DRY

Table 8
Summary of Key Contaminants of Concern
IRP Site 24 (Entomology Wash Rack)
Vandenberg AFB, California

	Benzene [J] (µg/L)												
Sample Location	**May-01**	**Dec-02**	**Oct-03**	**Nov-03/ Dec-03**	**Jan-04**	**Aug-04**	**Dec-04**	**Fall-04**	**Win-05**	**Spr-05**	**Sum-05**	**Fall-05**	**Win-06**
Shallow Zone Wells													
24-PMW-1	**1,620**	**940**	NA	**810**	NA	NA	NA	**980**	**650**	**1,200**	**1,100**	**1,100**	**930***
24-PMW-2	**3.69**	**8.7**	NA	**3.3**	NA	NA	NA	**2.8**	**3.5**	**3.4**	**3.4**	**2.2**	**4.2**
24-PMW-3	ND	**1.9**	NA	**2.2**	NA	NA	NA	**3.9**	**5.9**	**3.5**	**10**	**3.1**	**3.9**
24-PMW-4	ND	0.57	NA	0.61	NA	NA	NA	0.55	0.64	0.46	0.38	0.47	0.56
24-PMW-5	ND	ND	NA	ND	NA	NA	NA	0.21	0.29	ND	0.2	0.36	0.33
24-PMW-8	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
24-PMW-8-2	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
24-PIW-8-1	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-PIW-8-2	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
24-PMW-9	NA	ND	NA	DRY	NA	NA	NA	DRY	DRY	ND	ND	ND	ND
24-PMW-10	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-PMW-11	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-PMW-13	NA	ND	NA	ND	NA	NA	NA	DRY	ND	ND	ND	ND	ND
24-PMW-18	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-PMW-19	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-PMW-21	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-PMW-22	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	0.23
24-PMW-26	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
Intermediate Zone Wells													
24-MW-2	ND	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-MW-3A	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-4A	NA	NA	NA	DRY	NA	NA	NA	DRY	DRY	DRY	DRY	DRY	DRY
24-MW-5A	ND	ND	NA	ND	NA	NA	NA	0.42	ND	ND	ND	0.27	ND
24-MW-6	NA	NA	NA	ND	NA	NA	NA	DRY	DRY	DRY	DRY	DRY	DRY
24-MW-7	ND	ND	NA	ND	NA	NA	NA	DRY	DRY	DRY	DRY	DRY	DRY
24-MW-8A	NA	ND	NA	ND	NA	NA	NA	ND	0.25	ND	ND	ND	ND
24-MW-8A-2	NA	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
24-MW-9A	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND*
24-MW-10A	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-11A	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-12A	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-MW-13A	NA	ND	NA	DRY	NA	NA	NA	DRY	DRY	DRY	DRY	DRY	DRY
24-MW-14A	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-15A	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-22A	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND*
24-MW-26A	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-28A	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-29A	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-30A	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
Deep Zone Wells													
24-MW-3B	ND	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND*
24-MW-4B	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-MW-5B	ND	0.51	NA	0.47	NA	NA	NA	NA	0.87	0.66	0.48	0.45	0.51
24-MW-8B	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-9B	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND*
24-MW-10B	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-MW-11B	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-12B	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-MW-13B	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-14B	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-MW-15B	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-MW-16B	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-17B	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-MW-19B	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-MW-20B	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-21B	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-22B	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-23B	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-MW-24B	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-MW-25B	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-MW-26B	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-27B	NA	NA	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-31B	NA	NA	NA	ND	NA	NA	NA	DRY	DRY	DRY	DRY	DRY	DRY

Table 8
Summary of Key Contaminants of Concern
IRP Site 24 (Entomology Wash Rack)
Vandenberg AFB, California

	TPHg (mg/L)												
Sample Location	**May-01**	**Dec-02**	**Oct-03**	**Nov-03/ Dec-03**	**Jan-04**	**Aug-04**	**Dec-04**	**Fall-04**	**Win-05**	**Spr-05**	**Sum-05**	**Fall-05**	**Win-06**
Shallow Zone Wells													
24-PMW-1	11.7	5.1	NA	NA	NA	NA	NA	11	9.5	6.5	6.7	5.4	6.4*
24-PMW-2	0.035	0.490	NA	NA	NA	NA	NA	0.52	0.81	0.75	1.7	2.2	2
24-PMW-3	0.200	0.220	NA	NA	NA	NA	NA	0.22	0.34	ND	0.068	0.19	0.24
24-PMW-4	0.251	0.460	NA	NA	NA	NA	NA	0.12	0.17	ND	0.098	0.1	0.09
24-PMW-5	0.314	0.490	NA	NA	NA	NA	NA	0.074	0.083	ND	0.085	0.064	0.092
24-PMW-8	NA	NA	NA	NA	NA	NA	NA	0.021[m]	0.027[m]	ND	ND	0.35[m]	4.1[m]
24-PMW-8-2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
24-PIW-8-1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
24-PIW-8-2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
24-PMW-9	NA	ND	NA	DRY	NA	NA	NA	DRY	DRY	NA	NA	NA	NA
24-PMW-10	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	NA
24-PMW-11	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND*	NA
24-PMW-13	NA	NA	NA	NA	NA	NA	NA	DRY	ND	ND	ND	ND	NA
24-PMW-18	NA	NA	NA	NA	NA	NA	NA	NA	27[m]	43[m]	26[m]	38[m]	22[n]
24-PMW-19	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND*	ND
24-PMW-21	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	0.02[m]	0.024[m]	NA
24-PMW-22	NA	NA	NA	NA	NA	NA	NA	1.5[m]	5.6[m]	2.2[m]	2.2[m]	2.4[m]	2.6[n]
24-PMW-26	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Intermediate Zone Wells													
24-MW-2	0.0314	NA	NA	NA	NA	NA	NA	0.091[m]	0.12[m]	ND	0.049[m]	0.03*,[m]	NA
24-MW-3A	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	NA
24-MW-4A	NA	NA	NA	DRY	NA	NA	NA	DRY	DRY	DRY	DRY	DRY	DRY
24-MW-5A	0.124	0.150	NA	NA	NA	NA	NA	0.036[m]	0.05[m]	ND	0.075[m]	0.056[n]	NA
24-MW-6	NA	NA	NA	NA	NA	NA	NA	DRY	DRY	DRY	DRY	DRY	DRY
24-MW-7	ND	NA	NA	NA	NA	NA	NA	DRY	DRY	DRY	DRY	DRY	DRY
24-MW-8A	NA	NA	NA	NA	NA	NA	NA	0.14[m]	0.14[m]	ND	0.16[m]	0.19[m]	NA
24-MW-8A-2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
24-MW-9A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
24-MW-10A	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	NA
24-MW-11A	NA	NA	NA	NA	NA	NA	NA	ND	0.044[m]	ND	ND	ND	NA
24-MW-12A	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND*	NA
24-MW-13A	NA	NA	NA	NA	NA	NA	NA	DRY	DRY	DRY	DRY	DRY	DRY
24-MW-14A	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	NA
24-MW-15A	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	NA
24-MW-22A	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	NA
24-MW-26A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
24-MW-28A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
24-MW-29A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
24-MW-30A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Deep Zone Wells													
24-MW-3B	ND	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	NA
24-MW-4B	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND*	NA
24-MW-5B	0.069	NA	NA	NA	NA	NA	NA	NA	0.046[m]	ND	0.027	0.023	0.064
24-MW-8B	NA	NA	NA	NA	NA	NA	NA	0.28[m]	0.29[m]	ND	0.27[m]	0.28[m]	NA
24-MW-9B	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
24-MW-10B	NA	NA	NA	NA	NA	NA	NA	0.025[m]	0.032[m]	ND	0.032[m]	0.034*,[m]	NA
24-MW-11B	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	NA
24-MW-12B	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND*	NA
24-MW-13B	NA	NA	NA	NA	NA	NA	NA	0.19	0.18[m]	0.21[m]	0.21[m]	0.21[m]	NA
24-MW-14B	NA	NA	NA	NA	NA	NA	NA	0.41	0.49[m]	ND	0.4[m]	0.38*,[m]	NA
24-MW-15B	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND*	NA
24-MW-16B	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	0.044[m]	NA
24-MW-17B	NA	NA	NA	NA	NA	NA	NA	0.067[m]	0.058[m]	ND	0.045[m]	0.05*,[m]	NA
24-MW-19B	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND*	NA
24-MW-20B	NA	NA	NA	NA	NA	NA	NA	NA	0.029[m]	0.029[m]	0.048[m]	ND	NA
24-MW-21B	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	NA
24-MW-22B	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	NA
24-MW-23B	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	0.032[m]	0.065*,[m]	NA
24-MW-24B	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND*	NA
24-MW-25B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
24-MW-26B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
24-MW-27B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
24-MW-31B	NA	NA	NA	NA	NA	NA	NA	NA	DRY	DRY	DRY	DRY	DRY

Table 8
Summary of Key Contaminants of Concern
IRP Site 24 (Entomology Wash Rack)
Vandenberg AFB, California

	TPHd (mg/L)												
Sample Location	**May-01**	**Dec-02**	**Oct-03**	**Nov-03/ Dec-03**	**Jan-04**	**Aug-04**	**Dec-04**	**Fall-04**	**Win-05**	**Spr-05**	**Sum-05**	**Fall-05**	**Win-06**
Shallow Zone Wells													
24-PMW-1	3.850	1	NA	NA	NA	NA	NA	3.2	3.1	NA	2.8	2.3	2.3*
24-PMW-2	0.124	0.429	NA	NA	NA	NA	NA	0.11	0.12	NA	0.29	0.3	0.24
24-PMW-3	0.274	0.260	NA	NA	NA	NA	NA	0.23	0.22	NA	0.38	0.51	0.25
24-PMW-4	0.121	0.027	NA	NA	NA	NA	NA	3.4	2.3	1.6	0.75	0.46	0.39
24-PMW-5	0.268	0.062	NA	NA	NA	NA	NA	3.4	3.5	2.1	2.5	0.46	0.36
24-PMW-8	NA	NA	NA	NA	NA	NA	NA	6.1	R	1	1.1	52	110
24-PMW-8-2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
24-PIW-8-1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
24-PIW-8-2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
24-PMW-9	NA	ND	NA	DRY	NA	NA	NA	DRY	DRY	NA	NA	NA	NA
24-PMW-10	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-PMW-11	NA	NA	NA	NA	NA	NA	NA	2.2	3.2	2.6	1.3	1.3*	0.91
24-PMW-13	NA	NA	NA	NA	NA	NA	NA	DRY	ND	ND	0.098	ND	ND
24-PMW-18	NA	NA	NA	NA	NA	NA	NA	NA	ND	0.096	ND	0.1	ND
24-PMW-19	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND*	ND
24-PMW-21	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND
24-PMW-22	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-PMW-26	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Intermediate Zone Wells													
24-MW-2	0.12	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	0.15*	ND
24-MW-3A	NA	ND	NA	ND	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-4A	NA	NA	NA	DRY	NA	NA	NA	DRY	DRY	DRY	DRY	DRY	DRY
24-MW-5A	0.178	0.011	NA	NA	NA	NA	NA	0.18	ND	ND	ND	ND	ND
24-MW-6	NA	NA	NA	NA	NA	NA	NA	DRY	DRY	DRY	DRY	DRY	DRY
24-MW-7	0.168	NA	NA	NA	NA	NA	NA	DRY	DRY	DRY	DRY	DRY	DRY
24-MW-8A	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-8A-2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
24-MW-9A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
24-MW-10A	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-11A	NA	NA	NA	NA	NA	NA	NA	ND	0.11	0.13	0.14	0.12	0.1
24-MW-12A	NA	NA	NA	NA	NA	NA	NA	0.33	0.15	0.3	0.22	0.21*	0.15
24-MW-13A	NA	NA	NA	NA	NA	NA	NA	DRY	DRY	DRY	DRY	DRY	DRY
24-MW-14A	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-15A	NA	NA	NA	NA	NA	NA	NA	0.32	ND	ND	ND	ND	ND
24-MW-22A	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND*
24-MW-26A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
24-MW-28A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
24-MW-29A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
24-MW-30A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Deep Zone Wells													
24-MW-3B	0.043	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND*
24-MW-4B	NA	NA	NA	NA	NA	NA	NA	0.61	0.2	ND	0.25	0.39*	0.19
24-MW-5B	0.118	NA	NA	NA	NA	NA	NA	NA	0.14	0.23	0.1	0.18	0.11
24-MW-8B	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-9B	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
24-MW-10B	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-MW-11B	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-12B	NA	NA	NA	NA	NA	NA	NA	0.66	0.47	0.87	0.49	0.48*	0.36
24-MW-13B	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-14B	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-MW-15B	NA	NA	NA	NA	NA	NA	NA	5.5	0.68	ND	ND	ND*	ND
24-MW-16B	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	ND
24-MW-17B	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-MW-19B	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND*	ND
24-MW-20B	NA	NA	NA	NA	NA	NA	NA	NA	0.13	0.12	ND	0.18	ND
24-MW-21B	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	0.15	0.16	ND
24-MW-22B	NA	NA	NA	NA	NA	NA	NA	4	1.9	0.33	1	0.68	0.4
24-MW-23B	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-MW-24B	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND*	ND
24-MW-25B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
24-MW-26B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
24-MW-27B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
24-MW-31B	NA	NA	NA	NA	NA	NA	NA	NA	DRY	DRY	DRY	DRY	DRY

Table 8
Summary of Key Contaminants of Concern
IRP Site 24 (Entomology Wash Rack)
Vandenberg AFB, California

	1,4-Dioxane (µg/L)												
Sample Location	**May-01**	**Dec-02**	**Oct-03**	**Nov-03/ Dec-03**	**Jan-04**	**Aug-04**	**Dec-04**	**Fall-04**	**Win-05**	**Spr-05**	**Sum-05**	**Fall-05**	**Win-06**
Shallow Zone Wells													
24-PMW-1	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
24-PMW-2	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
24-PMW-3	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
24-PMW-4	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	310	R
24-PMW-5	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100	59
24-PMW-8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
24-PMW-8-2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
24-PIW-8-1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
24-PIW-8-2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
24-PMW-9	NA	NA	NA	DRY	NA	NA	NA	DRY	DRY	NA	NA	NA	NA
24-PMW-10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
24-PMW-11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
24-PMW-13	NA	NA	NA	NA	NA	NA	NA	DRY	NA	NA	NA	NA	NA
24-PMW-18	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
24-PMW-19	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
24-PMW-21	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
24-PMW-22	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
24-PMW-26	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Intermediate Zone Wells													
24-MW-2	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
24-MW-3A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
24-MW-4A	NA	NA	NA	DRY	NA	NA	NA	DRY	DRY	DRY	DRY	DRY	DRY
24-MW-5A	737	NA	NA	NA	NA	NA	NA	1,000	92	130	110	95	110
24-MW-6	NA	NA	NA	NA	NA	NA	NA	DRY	DRY	DRY	DRY	DRY	DRY
24-MW-7	ND	NA	NA	NA	NA	NA	NA	DRY	DRY	DRY	DRY	DRY	DRY
24-MW-8A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
24-MW-8A-2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
24-MW-9A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
24-MW-10A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
24-MW-11A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
24-MW-12A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
24-MW-13A	NA	NA	NA	NA	NA	NA	NA	DRY	DRY	DRY	DRY	DRY	DRY
24-MW-14A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
24-MW-15A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
24-MW-22A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
24-MW-26A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
24-MW-28A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
24-MW-29A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
24-MW-30A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Deep Zone Wells													
24-MW-3B	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
24-MW-4B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
24-MW-5B	296	NA	NA	NA	NA	NA	NA	NA	1,700	1,100	R	790	980
24-MW-8B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
24-MW-9B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
24-MW-10B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
24-MW-11B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
24-MW-12B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
24-MW-13B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
24-MW-14B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
24-MW-15B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
24-MW-16B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
24-MW-17B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
24-MW-19B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
24-MW-20B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
24-MW-21B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
24-MW-22B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
24-MW-23B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
24-MW-24B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
24-MW-25B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
24-MW-26B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
24-MW-27B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
24-MW-31B	NA	NA	NA	NA	NA	NA	NA	NA	DRY	DRY	DRY	DRY	DRY

Table 8
Summary of Key Contaminants of Concern
IRP Site 24 (Entomology Wash Rack)
Vandenberg AFB, California

Definition(s):

DCA	-	dichloroethane
DCE	-	dichloroethene
DRY	-	Well was dry or had insufficient water for sampling.
NA	-	not analyzed
ND	-	Not detected; result is less than the method detection limit.
µg/L	-	micrograms per liter
mg/L	-	milligrams per liter
PCE	-	tetrachloroethene
R	-	The data were rejected through the validation process.
TCA	-	trichloroethane
TCE	-	trichloroethene
TPHd	-	total petroleum hydrocarbons as diesel
TPHg	-	total petroleum hydrocarbons as gasoline

Note(s):

Bold type indicates results that were above the MCL.

a	-	The MCL for PCE is 5 µg/L.
b	-	The MCL for TCE is 5 µg/L.
c	-	The MCL for *cis* -1,2-DCE is 6 µg/L.
d	-	The MCL for 1,1-DCE is 6 µg/L.
e	-	The MCL for 1,1,1-TCA is 200 µg/L.
f	-	The MCL for 1,1,2-TCA is 5 µg/L.
g	-	The MCL for vinyl chloride is 0.5 µg/L.
h	-	The MCL for 1,1-DCA is 5 µg/L.
i	-	The MCL for 1,2-DCA is 0.5 µg/L.
j	-	The MCL for benzene is 1 µg/L.
k	-	This compound was not detected because the sample was diluted due to the extremely high PCE concentration. This compound is believed to have been present in groundwater during fall 2005, but below detection since dilution raised the detection limit.
m	-	TPHg detected in groundwater from this well were a result of chlorinated hydrocarbons in the gasoline range since no benzene, toluene, ethylbenzene, or xylenes were detected in groundwater from this well.
n	-	TPHg detected in groundwater from this well were a result of chlorinated hydrocarbons in the gasoline range since the benzene concentration is very low compared to the very high TCE and/or PCE concentration.
*	-	First quarter sampled with a dedicated micropurge pump installed.

APPENDIX A PURGE RECORDS

TETRA TECH, INC.
4213 State Street, STE 100
Santa Barbara, CA 93110
Telephone (805) 681-3100
Telefax (805) 681-3108

GROUNDWATER MONITORING WELL FIELD DATA LOG SHEET - PURGING

DATE 03/7/06 SITE NUMBER 24
PROGRAM NAME BGMP TRIP BLANK I.D. U24TB1211
MONITORING WELL IDENTIFICATION 24-PMW-1
SAMPLE I.D. U24PMW1 DUPLICATE I.D. / COLLECTION TIME U99W630 / 1600
STATIC WATER LEVEL (ft btoc) 9.79 TOTAL WELL DEPTH (ft btoc) 19.9
WATER COLUMN (feet) 10.1 TUBING DIAMETER (in) 2"
PUMP & TUBING (V) (L) 5.3(11.6) +100 = 0.16 5 V (L) 0.81

PURGING DEVICE MICROPURGE DEDICATED PUMP
SAMPLING DEVICE MICROPURGE DEDICATED PUMP
PID READING IN CASING (ppm) (initial) 34.0 (vented to) 0.0
PID READING IN BREATHING ZONE (ppm) (initial) 0.0 (vented to) 0.0
SAMPLER'S SIGNATURE

Time	Activity	Water Level (ft btoc)	Temp (Deg. C)	EC (µmhos/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (L)	Pump & Tubing Volumes Purged	Flow Rate (LPM)
1000	Arrived at well	—	—	—	—	—	—	—	—	—	—	—
1125	Begin Purge	—	—	—	—	—	—	—	—	—	—	0.16
1127	|	10.08	17.83	802	5.86	6.63	0.99	109	clear	0.32	2.00	↓
1129	|	10.14	18.01	803	5.84	6.16	9.2	107	clear	0.64	4.00	↓
1131	|	10.19	17.81	803	5.81	6.10	0.76	105	Clear	0.96	6.00	↓
1133		10.24	17.81	804	5.81	5.64	0.71	103	Clear	1.28	8.00	↓
1134	End Purge											
1140	Sample											
1340	Vacated well	—	—	—	—	—	—	—	—	—	—	—

Fe+2 (ppm) — Taken immediately before sampling.
WATER LEVEL (ft btoc) AT TIME OF SAMPLING: 10.32 FILTER LOT # A10532744
Comments:

PARAMETERS FOR WATER QUALITY STABILIZATION
Temperature ±1 C (1.8 F) Conductivity ±5%
pH ±0.1 Turbidity 5 NTUs

Note: All water levels and pump depths are measured from the notch in the top of the well casing. If volatiles are detected above background in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities.

TETRA TECH, INC.
4213 State Street, STE 100
Santa Barbara, CA 93110
Telephone (805) 681-3100
Telefax (805) 681-3108

GROUNDWATER MONITORING WELL
FIELD DATA LOG SHEET - PURGING

DATE 3/10/06 SITE NUMBER 24

PROGRAM NAME BGMP TRIP BLANK I.D. V24TB1209

MONITORING WELL IDENTIFICATION 24-PMW-2

SAMPLE I.D. V24PMW2 DUPLICATE I.D. / COLLECTION TIME —/—

STATIC WATER LEVEL (ft btoc) 8.35 TOTAL WELL DEPTH (ft btoc) 18.8

WATER COLUMN (feet) 10.5 CASING DIAMETER (in) 2"

WELL VOLUME (V) (gals) 1.69 3 V (gals) 5.08 BAILER BOX # 204

PURGING DEVICE 2" SUBMERSIBLE GRUNDFOS PUMP

SAMPLING DEVICE DISPOSABLE TEFLON BAILER

PID READING IN CASING (ppm) (initial) 4.5 (vented to) 0.0

PID READING IN BREATHING ZONE (ppm) (initial) 0.0 (vented to) 0.0

SAMPLER'S SIGNATURE

Time	Activity	Water Level (ft btoc)	Pump Depth (ft btoc)	Temp (Deg. C)	EC (µmhos/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (gals)	Well Volumes Purged	Flow Rate (GPM)
1345	Arrived at well	—	—	—	—	—	—	—	—	—	—	—	—
1356	Begin Purge	—	18.2	—	—	—	—	—	—	—	—	—	0.5
1401		11.76	↓	17.14	745	5.95	129	1.86	137.5	cloudy	2.5	1.48	↓
1406		14.24		17.80	734	5.89	117	1.70	133.1	cloudy	5.0	2.96	
1411		**		18.22	771	5.84	76.3	1.04	136.0	cloudy	7.5	4.44	
1416		**	↓	18.42	792	5.75	30.1	0.49	139.9	cloudy	10.0	5.91	↓
1417	End Purge - WELL DRY												
1515	Sample	—		16.11	756	5.94	28.9	5.65	199.2	—			
1525	Vacated well	—	—	—	—	—	—	—	—	—	—	—	—

Fe+2 (ppm) — Taken from first bailer immediately before sampling.

WATER LEVEL (ft btoc) AT TIME OF SAMPLING: 13.37 FILTER LOT # A10532744

Comments: ** WLM will not reach past pump

PARAMETERS FOR WATER QUALITY STABILIZATION

Temperature ±1 C (1.8 F)	Conductivity ±5%
pH ±0.1	Turbidity 5 NTUs

Note: All water levels and pump depths are measured from the notch in the top of the well casing. If volatiles are detected above background in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities.

Form number Tt-O-050 (9/05)

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TETRA TECH, INC.
4213 State Street, STE 100
Santa Barbara, CA 93110
Telephone (805) 681-3100
Telefax (805) 681-3108

GROUNDWATER MONITORING WELL
FIELD DATA LOG SHEET - PURGING

DATE 3/6/08 SITE NUMBER 24 PURGING DEVICE MICROPURGE DEDICATED PUMP

PROGRAM NAME B6MP TRIP BLANK I.D. V24TB1209 SAMPLING DEVICE MICROPURGE DEDICATED PUMP

MONITORING WELL IDENTIFICATION 24-MW-2 PID READING IN CASING (ppm) (initial) 0.0 (vented to) 0.0

SAMPLE I.D. V24MW2 DUPLICATE I.D. / COLLECTION TIME -/- PID READING IN BREATHING ZONE (ppm) (initial) 0.0 (vented to) 0.0

STATIC WATER LEVEL (ft btoc) 35.34 TOTAL WELL DEPTH (ft btoc) 59.0

WATER COLUMN (feet) 23.7 TUBING DIAMETER (in) 1/4 SAMPLER'S SIGNATURE

PUMP & TUBING (V) (L) 0.22 5 V (L) 1.10

Time	Activity	Water Level (ft btoc)	Temp (Deg. C)	EC (µmhos/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (L)	Pump & Tubing Volumes Purged	Flow Rate (LPM)
0950	Arrived at well											
1012	Begin Purge											0.16
1015		35.69	14.65	862	6.18	0.74	4.82	49.6	Clear	0.48	2.18	↓
1018		35.71	14.49	861	6.16	0.53	4.61	38.2	Clear	0.96	4.36	
1021		35.73	14.35	860	6.16	0.43	4.46	29.9	Clear	1.44	6.54	↓
1022	End Purge											
1025	Sample											
1040	Vacated well											

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Fe+2 (ppm) — Taken immediately before sampling.

WATER LEVEL (ft btoc) AT TIME OF SAMPLING: 35.74 FILTER LOT # A1053274 4

Comments: rain during sample/purge

PARAMETERS FOR WATER QUALITY STABILIZATION

Temperature ±1 C (1.8 F)	Conductivity ±5%
pH ±0.1	Turbidity 5 NTUs

Note: All water levels and pump depths are measured from the notch in the top of the well casing. If volatiles are detected above background in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities.

TETRA TECH, INC.
4213 State Street, STE 100
Santa Barbara, CA 93110
Telephone (805) 681-3100
Telefax (805) 681-3108

GROUNDWATER MONITORING WELL
FIELD DATA LOG SHEET - PURGING

DATE 3/7/06 SITE NUMBER 24 PURGING DEVICE 2" SUBMERSIBLE GRUNDFOS PUMP

PROGRAM NAME BGMP TRIP BLANK I.D. V24TB1211 SAMPLING DEVICE DISPOSABLE TEFLON BAILER

MONITORING WELL IDENTIFICATION 24-PMW-3 PID READING IN CASING (ppm) (initial) 0.3 (vented to) 0.0

SAMPLE I.D. V24PMW3 DUPLICATE I.D. / COLLECTION TIME — / — PID READING IN BREATHING ZONE (ppm) (initial) 0.1 (vented to) 0.0

STATIC WATER LEVEL (ft btoc) 10.27 TOTAL WELL DEPTH (ft btoc) 20.1

WATER COLUMN (feet) 9.8 CASING DIAMETER (in) 2 SAMPLER'S SIGNATURE

WELL VOLUME (V) (gals) 1.6 3 V (gals) 4.7 BAILER BOX # 204

Time	Activity	Water Level (ft btoc)	Pump Depth (ft btoc)	Temp (Deg. C)	EC (µmhos/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (gals)	Well Volumes Purged	Flow Rate (GPM)
0920	Arrived at well	—	—	—	—	—	—	—	—	—	—	—	—
0925	Begin Purge	—	19.5	—	—	—	—	—	—	—	—	—	0.50
0929		14.05	↓	16.75	724	6.45	13.6	1.13	-56.7	clear	2.00	1.25 ~~0.8~~	↓
0933		16.32	↓	17.81	806	6.52	6.26	0.70	-37.2	clear	4.00	2.50	↓
0936	End Purge - Well Dry												
1425	SAMPLE	12.48	—	18.17	785	6.65	44.8	6.13	134.3	clear	—	—	—
1445	Vacated well	—	—	—	—	—	—	—	—	—	—	—	—

Fe+2 (ppm) — Taken from first bailer immediately before sampling.

WATER LEVEL (ft btoc) AT TIME OF SAMPLING: 12.48 FILTER LOT # A 10L327644

Comments:

PARAMETERS FOR WATER QUALITY STABILIZATION
Temperature ±1 C (1.8 F) Conductivity ± 5%
pH ±0.1 Turbidity 5 NTUs

Note: All water levels and pump depths are measured from the notch in the top of the well casing. If volatiles are detected above background in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities.

Form number Tt-O-050 (9/05)

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TETRA TECH, INC.
4213 State Street, STE 100
Santa Barbara, CA 93110
Telephone (805) 681-3100
Telefax (805) 681-3108

GROUNDWATER MONITORING WELL
FIELD DATA LOG SHEET - PURGING

DATE 8 MARCH 2006 SITE NUMBER 24

PROGRAM NAME DGMP TRIP BLANK I.D. V24TB1212

MONITORING WELL IDENTIFICATION 24-MW-3A

SAMPLE I.D. V24MW3A DUPLICATE I.D. / COLLECTION TIME —/—

STATIC WATER LEVEL (ft btoc) 37.34 TOTAL WELL DEPTH (ft btoc) 44.7

WATER COLUMN (feet) 7.36 7.4 CASING DIAMETER (in) 4

WELL VOLUME (V) (gals) 4.80 3 V (gals) 14.4 BAILER BOX # 205

PURGING DEVICE 2" SUBMERSIBLE GRUNDFOS PUMP

SAMPLING DEVICE DISPOSABLE TEFLON BAILER

PID READING IN CASING (ppm) (initial) 0.0 (vented to) 0.0

PID READING IN BREATHING ZONE (ppm) (initial) 0.0 (vented to) 0.0

SAMPLER'S SIGNATURE

Time	Activity	Water Level (ft btoc)	Pump Depth (ft btoc)	Temp (Deg. C)	EC (µmhos/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (gals)	Well Volumes Purged	Flow Rate (GPM)
0910	Arrived at well	—	—	—	—	—	—	—	—	—	—	—	—
0925	Begin Purge	—	44	—	—	—	—	—	—	—	—	—	0.50
0930		38.90	|	18.77	1552	6.14	7.60	6.13	2.0	CLEAR	2.5	0.52	|
0935		39.86	|	19.90	1640	6.32	1.75	6.07	-3.5	CLEAR	5.0	1.04	|
0940		40.58	|	20.29	1683	6.37	1.20	6.11	-5.0	CLEAR	7.5	1.60	|
0945		41.26	|	20.39	1697	6.41	1.81	5.91	-5.2	CLEAR	10.0	2.10	|
0950		41.81	|	20.63	1711	6.46	1.39	5.85	-6.6	CLEAR	12.5	2.60	|
0955		42.20	|	20.75	1720	6.49	1.42	5.78	-7.3	CLEAR	15.0	3.13	|
0956 1440 +000	END PURGE	—	—	—	—	—	—	—	—	—	—	—	—
	SAMPLE	—	—	19.52	1764	5.50	2.20	6.35	54.4	CLEAR	—	—	—
1010	Vacated well	—	—	—	—	—	—	—	—	—	—	—	—

Fe+2 (ppm) — Taken from first bailer immediately before sampling.

WATER LEVEL (ft btoc) AT TIME OF SAMPLING: 37.73 FILTER LOT # A1G419059

Comments:

PARAMETERS FOR WATER QUALITY STABILIZATION

Temperature ±1 C (1.8 F)	Conductivity ±5%
pH ±0.1	Turbidity 5 NTUs

Note: All water levels and pump depths are measured from the notch in the top of the well casing. If volatiles are detected above background in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities.

Form number Tt-O-050 (9/05)

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TETRA TECH, INC.
4213 State Street, STE 100
Santa Barbara, CA 93110
Telephone (805) 681-3100
Telefax (805) 681-3108

GROUNDWATER MONITORING WELL
FIELD DATA LOG SHEET - PURGING

DATE 3/7/06 SITE NUMBER 24 PURGING DEVICE MICROPURGE DEDICATED PUMP

PROGRAM NAME BGMP TRIP BLANK I.D. V24TB1211 SAMPLING DEVICE MICROPURGE DEDICATED PUMP

MONITORING WELL IDENTIFICATION 24-MW-3B PID READING IN CASING (ppm) (initial) 0.0 (vented to) 0.0

SAMPLE I.D. V24MW3B DUPLICATE I.D. / COLLECTION TIME V99W631/1630 PID READING IN BREATHING ZONE (ppm) (initial) 0.0 (vented to) 0.0

STATIC WATER LEVEL (ft btoc) 37.90 TOTAL WELL DEPTH (ft btoc) 80.3

WATER COLUMN (feet) 42.4 TUBING DIAMETER (in) 1/4" SAMPLER'S SIGNATURE

PUMP & TUBING (V) (L) 76.5(5.3)+100 = 0.51 5 V (L) 2.53

Time	Activity	Water Level (ft btoc)	Temp (Deg. C)	EC (µmhos/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (L)	Pump & Tubing Volumes Purged	Flow Rate (LPM)
1455	Arrived at well											
1525	Begin Purge											0.30
1527		37.96	18.20	1113	6.25	7.99	8.28	-0.4	Clear	0.60	1.18	
1529		37.97	18.49	1209	6.21	5.70	8.06	0.1	Clear	1.20	2.36	
1531		37.97	18.49	1250	6.19	4.69	7.70	1.1	Clear	1.80	3.53	
1533		37.97	18.44	1266	6.16	3.46	7.84	0.6	Clear	2.40	4.70	
1534	End Purge											
1540	Sample											
1600	Vacated well											

Fe+2 (ppm) — Taken immediately before sampling.

WATER LEVEL (ft btoc) AT TIME OF SAMPLING: 37.97 FILTER LOT # A105 31342

Comments:

PARAMETERS FOR WATER QUALITY STABILIZATION

Temperature ±1 C (1.8 F)	Conductivity ± 5%
pH ± 0.1	Turbidity 5 NTUs

Note: All water levels and pump depths are measured from the notch in the top of the well casing. If volatiles are detected above background in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities.

Form number Tt-O-049 (9/05)

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TETRA TECH, INC.
4213 State Street, STE 100
Santa Barbara, CA 93110
Telephone (805) 681-3100
Telefax (805) 681-3108

GROUNDWATER MONITORING WELL FIELD DATA LOG SHEET - PURGING

DATE 03/07 SITE NUMBER 24

PROGRAM NAME BGMP TRIP BLANK I.D. V24TB1211

MONITORING WELL IDENTIFICATION 24-PMW-4

SAMPLE I.D. V24PMW4 DUPLICATE I.D. / COLLECTION TIME -/-

STATIC WATER LEVEL (ft btoc) 6.85 TOTAL WELL DEPTH (ft btoc) 20.6

WATER COLUMN (feet) 13.8 CASING DIAMETER (in) 2

WELL VOLUME (V) (gals) 2.16 3 V (gals) 6.48 BAILER BOX # 204

PURGING DEVICE 2" SUBMERSIBLE GRUNDFOS PUMP

SAMPLING DEVICE DISPOSABLE TEFLON BAILER

PID READING IN CASING (ppm) (initial) 1.6 (vented to) 0.3

PID READING IN BREATHING ZONE (ppm) (initial) 0.2 (vented to) 0.0

SAMPLER'S SIGNATURE [illegible] [illegible]

Time	Activity	Water Level (ft btoc)	Pump Depth (ft btoc)	Temp (Deg. C)	EC (µmhos/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (gals)	Well Volumes Purged	Flow Rate (GPM)
1300	Arrived at well	—	—	—	—	—	—	—	—	—	—	—	—
1316	Begin Purge	—	21.5	—	—	—	—	—	—	—	—	—	0.50
1320		10.21		17.40	817	6.35	2.46	3.99	271.8	clear	2.00	0.93	
1324		10.88		17.82	816	6.29	2.91	1.75	228.6	clear	4.00	1.85	
1328		12.31		17.77	815	6.29	3.26	1.47	208.0	clear	6.00	2.77	
1332		13.92		17.89	822	6.30	6.71	1.64	196.8	clear	8.00	3.70	
1336		16.30		18.31	847	6.31	10.6	3.42	187.8	clear	10.00	4.62	
1340		18.00		18.46	853	6.33	7.89	2.98	182.7	Clear	12.00	5.55	
1341	END PURGE												
1350	Sample	17.08	—	18.11	834	6.51	44.8	4.23	233.8	clear	—	—	—
1405	Vacated well	—	—	—	—	—	—	—	—	—	—	—	—

Fe+2 (ppm) — Taken from first bailer immediately before sampling.

WATER LEVEL (ft btoc) AT TIME OF SAMPLING: 17.08 FILTER LOT # A10532744

Comments:

PARAMETERS FOR WATER QUALITY STABILIZATION
Temperature ±1 C (1.8 F) Conductivity ± 5%
pH ± 0.1 Turbidity 5 NTUs

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Note: All water levels and pump depths are measured from the notch in the top of the well casing. If volatiles are detected above background in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities.

TETRA TECH, INC.
4213 State Street, STE 100
Santa Barbara, CA 93110
Telephone (805) 681-3100
Telefax (805) 681-3108

GROUNDWATER MONITORING WELL
FIELD DATA LOG SHEET - PURGING

DATE 3/10/06 SITE NUMBER 24

PROGRAM NAME BGMP TRIP BLANK I.D. V24TB1215

MONITORING WELL IDENTIFICATION 24-MW-4B

SAMPLE I.D. V24MW4BM DUPLICATE I.D. / COLLECTION TIME —/—

STATIC WATER LEVEL (ft btoc) 65.42 TOTAL WELL DEPTH (ft btoc) 88.0

WATER COLUMN (feet) 22.6 TUBING DIAMETER (in) 1/4

PUMP & TUBING (V) (L) 0.25 5 V (L) 1.25

PURGING DEVICE MICROPURGE DEDICATED PUMP

SAMPLING DEVICE MICROPURGE DEDICATED PUMP

PID READING IN CASING (ppm) (initial) 0.1 (vented to) 0.0

PID READING IN BREATHING ZONE (ppm) (initial) 0.0 (vented to) 0.0

SAMPLER'S SIGNATURE

Time	Activity	Water Level (ft btoc)	Temp (Deg. C)	EC (µmhos/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (L)	Pump & Tubing Volumes Purged	Flow Rate (LPM)
0930	Arrived at well											
1000	Begin Purge											0.24
1002		65.50	17.06	2099	5.61	69.6	5.56	69.0	Slightly cloudy	0.48	1.92	↓
1004		65.50	17.38	2126	5.62	43.5	1.50	56.7	Slightly cloudy	0.96	3.84	
1006		65.50	17.41	2137	5.53	40.4	0.96	52.2	Slightly cloudy	1.44	5.76	
1008	End Purge											
1010	Sample											
1030	Vacated well											

Fe+2 (ppm) — Taken immediately before sampling.

WATER LEVEL (ft btoc) AT TIME OF SAMPLING: 65.50 FILTER LOT # A10425464

Comments: MS/MSD

PARAMETERS FOR WATER QUALITY STABILIZATION

Temperature ±1 C (1.8 F)	Conductivity ± 5%
pH ± 0.1	Turbidity 5 NTUs

Note: All water levels and pump depths are measured from the notch in the top of the well casing. If volatiles are detected above background in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities.

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Santa Barbara, CA 93110
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Telefax (805) 681-3108

GROUNDWATER MONITORING WELL
FIELD DATA LOG SHEET - PURGING

DATE 3/7/06 SITE NUMBER 24 PURGING DEVICE 2" SUBMERSIBLE GRUNDFOS PUMP

PROGRAM NAME BGMP TRIP BLANK I.D. V24TB1211 SAMPLING DEVICE DISPOSABLE TEFLON BAILER

MONITORING WELL IDENTIFICATION 24-PMW-5 PID READING IN CASING (ppm) (initial) 2.2 (vented to) 0.1

SAMPLE I.D. V24PMW5 DUPLICATE I.D. / COLLECTION TIME – / – PID READING IN BREATHING ZONE (ppm) (initial) 0.1 (vented to) 0.0

STATIC WATER LEVEL (ft btoc) 6.95 TOTAL WELL DEPTH (ft btoc) 20.4

WATER COLUMN (feet) 13.5 CASING DIAMETER (in) 2 SAMPLER'S SIGNATURE [signature]

WELL VOLUME (V) (gals) 2.15 3 V (gals) 6.46 BAILER BOX # 204

Time	Activity	Water Level (ft btoc)	Pump Depth (ft btoc)	Temp (Deg. C)	EC (μmhos/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (gals)	Well Volumes Purged	Flow Rate (GPM)
0952	Arrived at well	—	—	—	—	—	—	—	—	—	—	—	—
0955	Begin Purge	—	19.5	—	—	—	—	—	—	—	—	—	0.50
1000		10.60	↓	16.50	725	6.63	17.4	3.18	82.4	clear	2.50	~~0.86~~ 1.16	↓
1005		11.30		17.09	705	6.56	6.39	1.92	73.6	clear	5.00	2.33	
1010		12.92		17.40	707	6.57	9.18	1.77	69.3	clear	7.50	3.49	
1015		14.31		17.69	749	6.47	9.04	1.67	72.9	clear	10.00	4.65	
1020		15.30		17.83	760	6.44	10.2	1.41	74.8	clear	12.50	5.81	
1021	End Purge												
1030	Sample	13.39	–	17.54	759	6.74	87.8	3.15	152.4	cloudy	—	—	—
1055	Vacated well	—	—	—	—	—	—	—	—	—	—	—	—

Fe+2 (ppm) — Taken from first bailer immediately before sampling.

WATER LEVEL (ft btoc) AT TIME OF SAMPLING: 13.39 FILTER LOT # A10532744

Comments:

PARAMETERS FOR WATER QUALITY STABILIZATION
Temperature ±1 C (1.8 F) Conductivity ±5%
pH ±0.1 Turbidity 5 NTUs

Note: All water levels and pump depths are measured from the notch in the top of the well casing. If volatiles are detected above background in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities.

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TETRA TECH, INC.
4213 State Street, STE 100
Santa Barbara, CA 93110
Telephone (805) 681-3100
Telefax (805) 681-3108

GROUNDWATER MONITORING WELL
FIELD DATA LOG SHEET - PURGING

DATE 3/7/06 SITE NUMBER 24

PROGRAM NAME BGMP TRIP BLANK I.D. V24TB1211

MONITORING WELL IDENTIFICATION 24-MW-5A

SAMPLE I.D. V24MW5A DUPLICATE I.D. / COLLECTION TIME - / -

STATIC WATER LEVEL (ft btoc) 38.13 TOTAL WELL DEPTH (ft btoc) 40.4

WATER COLUMN (feet) 2.3 CASING DIAMETER (in) 4

WELL VOLUME (V) (gals) 1.48 3 V (gals) 4.43 BAILER BOX # 204

PURGING DEVICE 2" SUBMERSIBLE GRUNDFOS PUMP

SAMPLING DEVICE DISPOSABLE TEFLON BAILER

PID READING IN CASING (ppm) (initial) 0.9 (vented to) 0.0

PID READING IN BREATHING ZONE (ppm) (initial) 0.0 (vented to) 0.0

SAMPLER'S SIGNATURE Jongsok Choi

Time	Activity	Water Level (ft btoc)	Pump Depth (ft btoc)	Temp (Deg. C)	EC (µmhos/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (gals)	Well Volumes Purged	Flow Rate (GPM)
1100	Arrived at well	—	—	—	—	—	—	—	—	—	—	—	—
1102	Begin Purge	—	40.0	—	—	—	—	—	—	—	—	—	0.50
1104	End Purge - Well Dry	—									1.00	0.68	—
1450	SAMPLE	—											
1515	Vacated well	—	—	—	—	—	—	—	—	—	—	—	—

Fe+2 (ppm) — Taken from first bailer immediately before sampling.

WATER LEVEL (ft btoc) AT TIME OF SAMPLING: 38.46 FILTER LOT # 10532744

Comments: Minimal water to sample so only one diesel collected and no parameters measured

PARAMETERS FOR WATER QUALITY STABILIZATION

Temperature ±1 C (1.8 F)	Conductivity ±5%
pH ±0.1	Turbidity 5 NTUs

Note: All water levels and pump depths are measured from the notch in the top of the well casing. If volatiles are detected above background in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities.

Form number Tt-O-050 (9/05)

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4213 State Street, STE 100
Santa Barbara, CA 93110
Telephone (805) 681-3100
Telefax (805) 681-3108

GROUNDWATER MONITORING WELL
FIELD DATA LOG SHEET - PURGING

DATE 3/7/06 SITE NUMBER 24 PURGING DEVICE 2" SUBMERSIBLE GRUNDFOS PUMP

PROGRAM NAME BGMP TRIP BLANK I.D. V24TB1211 SAMPLING DEVICE DISPOSABLE TEFLON BAILER

MONITORING WELL IDENTIFICATION 24-MW-5B PID READING IN CASING (ppm) (initial) 2.9 (vented to) 0.4

SAMPLE I.D. V24MW5B DUPLICATE I.D. / COLLECTION TIME -/- PID READING IN BREATHING ZONE (ppm) (initial) 0.2 (vented to) 0.0

STATIC WATER LEVEL (ft btoc) 65.15 TOTAL WELL DEPTH (ft btoc) 85.3

WATER COLUMN (feet) 20.2 CASING DIAMETER (in) 4 SAMPLER'S SIGNATURE Jagbok Chi

WELL VOLUME (V) (gals) 13.10 3 V (gals) 39.39 BAILER BOX # 204

Time	Activity	Water Level (ft btoc)	Pump Depth (ft btoc)	Temp (Deg. C)	EC (µmhos/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (gals)	Well Volumes Purged	Flow Rate (GPM)
1119	Arrived at well	—	—	—	—	—	—	—	—	—	—	—	—
1141	Begin Purge	—	85.0	—	—	—	—	—	—	—	—	—	2.00
1146		67.92	↓	20.27	856	5.69	19.5	0.70	186.5	clear	10.0	0.76	↓
1151		68.00	↓	20.30	856	5.63	2.70	0.27	189.0	clear	20.0	1.53	
1153	Raise pump		75.0	—	—	—	—	—	—	—	—	—	
1156		68.08	↓	20.34	857	5.63	3.21	0.21	192.9	clear	30.0	2.29	↓
1200	Stop purging	—	—	—	—	—	—	—	—	—	~~40.0~~ mn	~~3.05~~ mn	—
1203	Resume purge	—	—	—	—	—	—	—	—	—	—	—	—
1204		67.42	75.0	20.18	854	5.62	2.35	0.21	192.1	clear	40.0	3.05	2.00
1209		68.03	↓	20.21	854	5.61	1.81	0.15	195.5	clear	50.0	3.82	↓
1210	~~Stop~~ mn End Purge	—	—	—	—	—	—	—	—	—	—	—	—
1220	Sample	65.21	—	18.64	822	6.34	2.46	3.63	299.1	clear	—	—	—
1230	Vacated well	—	—	—	—	—	—	—	—	—	—	—	—

Fe+2 (ppm) — Taken from first bailer immediately before sampling.

WATER LEVEL (ft btoc) AT TIME OF SAMPLING: 65.21 FILTER LOT # A1053 2744

Comments: Stop in purge due to generator malfunction.

PARAMETERS FOR WATER QUALITY STABILIZATION

Temperature ±1 C (1.8 F)	Conductivity ± 5%
pH ± 0.1	Turbidity 5 NTUs

Note: All water levels and pump depths are measured from the notch in the top of the well casing. If volatiles are detected above background in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities.

Form number Tt-O-050 (9/05)

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4213 State Street, STE 100
Santa Barbara, CA 93110
Telephone (805) 681-3100
Telefax (805) 681-3108

GROUNDWATER MONITORING WELL FIELD DATA LOG SHEET - PURGING

DATE 03/07/06 SITE NUMBER 24

PROGRAM NAME BGMP TRIP BLANK I.D. —

MONITORING WELL IDENTIFICATION 24-MW-6

SAMPLE I.D. — DUPLICATE I.D. / COLLECTION TIME — / —

STATIC WATER LEVEL (ft btoc) ~~64.78~~ DRY TOTAL WELL DEPTH (ft btoc) 65.0

WATER COLUMN (feet) 0.2 CASING DIAMETER (in) 4

WELL VOLUME (V) (gals) — 3 V (gals) — BAILER BOX # —

PURGING DEVICE 2" SUBMERSIBLE GRUNDFOS PUMP

SAMPLING DEVICE DISPOSABLE TEFLON BAILER

PID READING IN CASING (ppm) (initial) 0.6 (vented to) 0.0

PID READING IN BREATHING ZONE (ppm) (initial) 0.0 (vented to) 0.0

SAMPLER'S SIGNATURE [signature] [signature]

Time	Activity	Water Level (ft btoc)	Pump Depth (ft btoc)	Temp (Deg. C)	EC (μmhos/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (gals)	Well Volumes Purged	Flow Rate (GPM)
1415	Arrived at well	—	—	—	—	—	—	—	—	—	—	—	—
—	Begin Purge	—		—	—	—	—	—	—	—	—	—	—
1417	well DRY — No Sample												
1418	Vacated well	—	—	—	—	—	—	—	—	—	—	—	—

Fe+2 (ppm) — Taken from first bailer immediately before sampling.

WATER LEVEL (ft btoc) AT TIME OF SAMPLING: — FILTER LOT # —

Comments:

PARAMETERS FOR WATER QUALITY STABILIZATION

Temperature ±1 C (1.8 F)	Conductivity ±5%
pH ±0.1	Turbidity 5 NTUs

Note: All water levels and pump depths are measured from the notch in the top of the well casing. If volatiles are detected above background in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities.

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Form number Tt-O-050 (9/05)

TETRA TECH, INC.
4213 State Street, STE 100
Santa Barbara, CA 93110
Telephone (805) 681-3100
Telefax (805) 681-3108

GROUNDWATER MONITORING WELL
FIELD DATA LOG SHEET - PURGING

DATE 3/7/06 SITE NUMBER 24 PURGING DEVICE 2" SUBMERSIBLE GRUNDFOS PUMP

PROGRAM NAME BCMP TRIP BLANK I.D. V24TB 1211 SAMPLING DEVICE DISPOSABLE TEFLON BAILER

MONITORING WELL IDENTIFICATION 24-MW-7 PID READING IN CASING (ppm) (initial) 1.1 (vented to) 0.0

SAMPLE I.D. ~~V24MW7~~ MW DUPLICATE I.D. / COLLECTION TIME — / — PID READING IN BREATHING ZONE (ppm) (initial) 0.0 (vented to) 0.0

STATIC WATER LEVEL (ft btoc) AH ~~64.65~~ DRY TOTAL WELL DEPTH (ft btoc) ~~67.2~~ 64.9

WATER COLUMN (feet) 0.3 CASING DIAMETER (in) 4 SAMPLER'S SIGNATURE

WELL VOLUME (V) (gals) 0.20 3 V (gals) 0.60 BAILER BOX # ~~204~~ MW

Time	Activity	Water Level (ft btoc)	Pump Depth (ft btoc)	Temp (Deg. C)	EC (µmhos/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (gals)	Well Volumes Purged	Flow Rate (GPM)
1045	Arrived at well	—	—	—	—	—	—	—	—	—	—	—	—
—	Begin Purge	—	—	—	—	—	—	—	—	—	—	—	—
1055	Well dry; no sample collected.												
1100	Vacated well	—	—	—	—	—	—	—	—	—	—	—	—

Fe+2 (ppm) — Taken from first bailer immediately before sampling.

WATER LEVEL (ft btoc) AT TIME OF SAMPLING: — FILTER LOT # —

Comments: Water Total depth remeasured at 64.9, not 67.2.

PARAMETERS FOR WATER QUALITY STABILIZATION

Temperature ±1 C (1.8 F)	Conductivity ± 5%
pH ± 0.1	Turbidity 5 NTUs

Note: All water levels and pump depths are measured from the notch in the top of the well casing. If volatiles are detected above background in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities.

Form number Tt-O-050 (9/05)

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Santa Barbara, CA 93110
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Telefax (805) 681-3108

GROUNDWATER MONITORING WELL
FIELD DATA LOG SHEET - PURGING

DATE 8 MARCH 2006 SITE NUMBER 24

PROGRAM NAME BGMP TRIP BLANK I.D. V24 TB1212

MONITORING WELL IDENTIFICATION 24 - PMW-8

SAMPLE I.D. V24PMW8 DUPLICATE I.D. / COLLECTION TIME -/-

STATIC WATER LEVEL (ft btoc) 11.80 TOTAL WELL DEPTH (ft btoc) 21.5

WATER COLUMN (feet) 9.7 CASING DIAMETER (in) 4

WELL VOLUME (V) (gals) 6.3 3 V (gals) 18.9 BAILER BOX # 205

PURGING DEVICE 2" SUBMERSIBLE GRUNDFOS PUMP

SAMPLING DEVICE DISPOSABLE TEFLON BAILER

PID READING IN CASING (ppm) (initial) 0.4 (vented to) 0.0

PID READING IN BREATHING ZONE (ppm) (initial) 0.0 (vented to) 0.0

SAMPLER'S SIGNATURE

Time	Activity	Water Level (ft btoc)	Pump Depth (ft btoc)	Temp (Deg. C)	EC (µmhos/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (gals)	Well Volumes Purged	Flow Rate (GPM)
1047	Arrived at well	—	—	—	—	—	—	—	—	—	—	—	—
1052	Begin Purge	—	21.0	—	—	—	—	—	—	—	—	—	0.50
1057		14.75	|	18.32	3208	3.88	15.4	0.69	60.2	cloudy brown	2.5	0.40	|
1102		17.05	|	19.17	3545	3.87	19.6	0.43	46.7	cloudy brown	5.0	0.80	|
1107		18.83	|	19.36	3673	3.86	21.5	0.31	44.3	cloudy brown	7.5	1.20	|
1112	End purge	21.0		19.62	3726	3.85	—	0.25	46.3	cloudy brown	10.0	1.60	|
1113	WELL PURGED DRY												
1325	SAMPLE	19.53	—	18.61	5258	3.87	+200	2.04	58.4	cloudy brown	—	—	—
1345	Vacated well	—	—	—	—	—	—	—	—	—	—	—	—

Fe+2 (ppm) — Taken from first bailer immediately before sampling.

WATER LEVEL (ft btoc) AT TIME OF SAMPLING: 19.53 FILTER LOT # A1041905H

Comments: 1055 - Pablo On-Site. This cluster of wells influenced by molasses injection resulting in low pH (high acidity), color, and odor.

PARAMETERS FOR WATER QUALITY STABILIZATION

Temperature ±1 C (1.8 F)	Conductivity ±5%
pH ±0.1	Turbidity 5 NTUs

Note: All water levels and pump depths are measured from the notch in the top of the well casing. If volatiles are detected above background in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities.

Form number Tt-O-050 (9/05)

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TETRA TECH, INC.
4213 State Street, STE 100
Santa Barbara, CA 93110
Telephone (805) 681-3100
Telefax (805) 681-3108

GROUNDWATER MONITORING WELL
FIELD DATA LOG SHEET - PURGING

DATE 3/8/06 SITE NUMBER 24

PROGRAM NAME B6MP TRIP BLANK I.D. V24TB1212

MONITORING WELL IDENTIFICATION 24-MW-8A

SAMPLE I.D. V24MW8A DUPLICATE I.D. / COLLECTION TIME -1-

STATIC WATER LEVEL (ft btoc) 29.85 TOTAL WELL DEPTH (ft btoc) 38.6

WATER COLUMN (feet) 8.75 CASING DIAMETER (in) 4

WELL VOLUME (V) (gals) 5.69 3 V (gals) 7.06 BAILER BOX # 205

PURGING DEVICE 2" SUBMERSIBLE GRUNDFOS PUMP

SAMPLING DEVICE DISPOSABLE TEFLON BAILER

PID READING IN CASING (ppm) (initial) 3.1 (vented to) 0.0

PID READING IN BREATHING ZONE (ppm) (initial) 0.0 (vented to) 0.0

SAMPLER'S SIGNATURE C. Burt Sgrl

Time	Activity	Water Level (ft btoc)	Pump Depth (ft btoc)	Temp (Deg. C)	EC (µmhos/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (gals)	Well Volumes Purged	Flow Rate (GPM)
1000	Arrived at well	—	—	—	—	—	—	—	—	—	—	—	—
1010	Begin Purge	—	38	—	—	—	—	—	—	—	—	—	0.5
1015		32.00		16.65	715	6.27	16.8	7.56	280.1	clear	2.5	0.43	
1020		33.94		18.98	759	6.11	10.7	6.87	181.9	clear	5.0	0.88	
1025		35.16		19.69	773	6.10	6.03	7.00	170.5	clear	7.5	1.32	
1030		36.83		20.43	790	5.98	5.96	6.68	174.9	clear	10.0	1.75	
1035		37.57		20.01	791	5.98	6.17	6.46	180.1	clear	12.5	2.20	
1036	End Purge	Well Dry											
1355	Sample	—		12.00	807	5.91	77.3	5.82	307.2	—			
1400	Vacated well	—	—	—	—	—	—	—	—	—	—	—	—

Fe+2 (ppm) — Taken from first bailer immediately before sampling.

WATER LEVEL (ft btoc) AT TIME OF SAMPLING: 36.30 FILTER LOT # A104190S9

Comments:

PARAMETERS FOR WATER QUALITY STABILIZATION

Temperature ±1 C (1.8 F)	Conductivity ± 5%
pH ± 0.1	Turbidity 5 NTUs

Note: All water levels and pump depths are measured from the notch in the top of the well casing. If volatiles are detected above background in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities.

Form number Tt-O-050 (9/05)

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Santa Barbara, CA 93110
Telephone (805) 681-3100
Telefax (805) 681-3108

GROUNDWATER MONITORING WELL
FIELD DATA LOG SHEET - PURGING

DATE 3/8/06 SITE NUMBER 24 PURGING DEVICE 2" SUBMERSIBLE GRUNDFOS PUMP

PROGRAM NAME BGMP TRIP BLANK I.D. V24TB1212 SAMPLING DEVICE DISPOSABLE TEFLON BAILER

MONITORING WELL IDENTIFICATION 24-MW-68 PID READING IN CASING (ppm) (initial) 0.7 (vented to) 0.0

SAMPLE I.D. V24MW68 DUPLICATE I.D. / COLLECTION TIME -/- PID READING IN BREATHING ZONE (ppm) (initial) 0.0 (vented to) 0.0

STATIC WATER LEVEL (ft btoc) 33.96 TOTAL WELL DEPTH (ft btoc) 71.7

WATER COLUMN (feet) 37.1 CASING DIAMETER (in) 4 SAMPLER'S SIGNATURE Brent Stone

WELL VOLUME (V) (gals) 24.1 3 V (gals) 72.4 BAILER BOX # 205

Time	Activity	Water Level (ft btoc)	Pump Depth (ft btoc)	Temp (Deg. C)	EC (µmhos/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (gals)	Well Volumes Purged	Flow Rate (GPM)
1200	Arrived at well	—	—	—	—	—	—	—	—	—	—	—	—
1215	Begin Purge	—	71	—	—	—	—	—	—	—	—	—	1.5
1220		44.89		19.79	769	6.27	66.1	5.85	168.1	Cloudy	7.5	0.31	
1225		52.51		20.17	765	6.31	29.3	5.71	168.2	clear	15.0	0.62	
1230		57.85		20.25	758	6.37	14.6	5.88	160.1	Clear	22.5	0.93	
1235		62.62		20.39	758	6.36	10.3	6.07	161.5	Clear	30.0	1.25	
1240		66.27		20.48	760	6.36	12.2	6.19	157.7	Clear	37.5	1.56	
1245		70.48		20.50	762	6.24	7.55	5.72	171	Clear	45.0	1.86	
1247	Final Purge — Well Dry												
1310	Sample @ —			19.32	748	6.24	10.6	6.80	206.2	—			
1315	Vacated well	—	—	—	—	—	—	—	—	—	—	—	—

Fe+2 (ppm) ~ Taken from first bailer immediately before sampling.

WATER LEVEL (ft btoc) AT TIME OF SAMPLING: 62.15 FILTER LOT # A1057744

PARAMETERS FOR WATER QUALITY STABILIZATION
Temperature ±1 C (1.8 F) Conductivity ±5%
pH ±0.1 Turbidity 5 NTUs

Comments:

Note: All water levels and pump depths are measured from the notch in the top of the well casing. If volatiles are detected above background in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities.

Form number Tt-O-050 (9/05)

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Telephone (805) 681-3100
Telefax (805) 681-3108

GROUNDWATER MONITORING WELL
FIELD DATA LOG SHEET - PURGING

DATE 8 MARCH SITE NUMBER 24

PROGRAM NAME BGMP TRIP BLANK I.D. V24TB1212

MONITORING WELL IDENTIFICATION 24-PMW-8-2

SAMPLE I.D. V24PMW82 DUPLICATE I.D. / COLLECTION TIME -/-

STATIC WATER LEVEL (ft btoc) 12.09 TOTAL WELL DEPTH (ft btoc) 22.9

WATER COLUMN (feet) 10.81 CASING DIAMETER (in) 2

WELL VOLUME (V) (gals) 1.84 3 V (gals) 5.5 BAILER BOX # 205

PURGING DEVICE 2" SUBMERSIBLE GRUNDFOS PUMP

SAMPLING DEVICE DISPOSABLE TEFLON BAILER

PID READING IN CASING (ppm) (initial) 0.0 (vented to) 0.0

PID READING IN BREATHING ZONE (ppm) (initial) 0.0 (vented to) 0.0

SAMPLER'S SIGNATURE

Time	Activity	Water Level (ft btoc)	Pump Depth (ft btoc)	Temp (Deg. C)	EC (µmhos/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (gals)	Well Volumes Purged	Flow Rate (GPM)
1015	Arrived at well	—	—	—	—	—	—	—	—	—	—	—	—
1025	Begin Purge	—	22.5	—	—	—	—	—	—	—	—	—	0.5
1030	"	16.89	"	17.99	3051	5.20	34.7	1.49	-40.9	cloudy orange	2.5	1.36	"
1035	Enlarge	20.13	"	18.64	3409	5.06	31.9	0.68	-25.9	cloudy orange	5.0	2.72	"
1037	WELL PURGED DRY	—	—	—	—	—	—	—	—	—	—	—	—
~~1355~~ 1400	SAMPLE	~~15.95~~	—	18.51	4580	5.14	18.7	2.25	0.6	cloudy orange	—	—	—
1400	Vacated well	—	—	—	—	—	—	—	—	—	—	—	—

Fe+2 (ppm) — Taken from first bailer immediately before sampling.

WATER LEVEL (ft btoc) AT TIME OF SAMPLING: 15.95 FILTER LOT #

Comments: * ROTTEN ODOR and orange color to groundwater

PARAMETERS FOR WATER QUALITY STABILIZATION

Temperature ±1 C (1.8 F)	Conductivity ± 5%
pH ± 0.1	Turbidity 5 NTUs

Note: All water levels and pump depths are measured from the notch in the top of the well casing. If volatiles are detected above background in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities.

Form number Tt-O-050 (9/05)

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4213 State Street, STE 100
Santa Barbara, CA 93110
Telephone (805) 681-3100
Telefax (805) 681-3108

GROUNDWATER MONITORING WELL
FIELD DATA LOG SHEET - PURGING

DATE 3/8/06 SITE NUMBER 24 PURGING DEVICE 2" SUBMERSIBLE GRUNDFOS PUMP

PROGRAM NAME BGMP TRIP BLANK I.D. V24TB022 SAMPLING DEVICE DISPOSABLE TEFLON BAILER

MONITORING WELL IDENTIFICATION 24-MW-8A-2 PID READING IN CASING (ppm) (initial) 0.4 (vented to) 0.0

SAMPLE I.D. V24MW8A2 DUPLICATE I.D. / COLLECTION TIME — / — PID READING IN BREATHING ZONE (ppm) (initial) 0.0 (vented to) 0.0

STATIC WATER LEVEL (ft btoc) 31.50 TOTAL WELL DEPTH (ft btoc) 39.0

WATER COLUMN (feet) 7.50 CASING DIAMETER (in) 2" SAMPLER'S SIGNATURE

WELL VOLUME (V) (gals) 1.26 3 V (gals) 3.78 BAILER BOX # 205

Time	Activity	Water Level (ft btoc)	Pump Depth (ft btoc)	Temp (Deg. C)	EC (µmhos/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (gals)	Well Volumes Purged	Flow Rate (GPM)
1040	Arrived at well	—	—	—	—	—	—	—	—	—	—	—	—
1051	Begin Purge	—	38	—	—	—	—	—	—	—	—	—	0.5
1055	|	33.94	↓	17.49	720	6.10	68.1	6.94	170.1	clear	2.0	1.58	↓
1059	|	36.33	↓	18.01	686	6.47	16.5	6.88	149.9	clear	4.0	3.17	↓
1102	End	Purge	-	well	dry								
1320	Sample	—	—	19.02	779	6.62	156	6.02	251.3				
1325	Vacated well	—	—	—	—	—	—	—	—	—	—	—	—

Fe+2 (ppm) — Taken from first bailer immediately before sampling.

WATER LEVEL (ft btoc) AT TIME OF SAMPLING: 34.95 FILTER LOT # —

Comments:

PARAMETERS FOR WATER QUALITY STABILIZATION

Temperature ±1 C (1.8 F)	Conductivity ± 5%
pH ± 0.1	Turbidity 5 NTUs

Note: All water levels and pump depths are measured from the notch in the top of the well casing. If volatiles are detected above background in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities.

Form number Tt-O-050 (9/05)

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Santa Barbara, CA 93110
Telephone (805) 681-3100
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GROUNDWATER MONITORING WELL
FIELD DATA LOG SHEET - PURGING

DATE 8 MARCH 2006 SITE NUMBER 24 PURGING DEVICE 2" SUBMERSIBLE GRUNDFOS PUMP

PROGRAM NAME BGMP TRIP BLANK I.D. V24TB1212 SAMPLING DEVICE DISPOSABLE TEFLON BAILER

MONITORING WELL IDENTIFICATION 24-PIW-8-1 PID READING IN CASING (ppm) (initial) 0.0 (vented to) 0.0

SAMPLE I.D. V24PIW81 DUPLICATE I.D. / COLLECTION TIME V99W632 / 1700 PID READING IN BREATHING ZONE (ppm) (initial) 0.0 (vented to) 0.0

STATIC WATER LEVEL (ft btoc) 11.65 TOTAL WELL DEPTH (ft btoc) 21.6

WATER COLUMN (feet) 10.0 ~~9.95~~ CASING DIAMETER (in) 2 SAMPLER'S SIGNATURE

WELL VOLUME (V) (gals) 1.70 3 V (gals) 5.1 BAILER BOX # 205

Time	Activity	Water Level (ft btoc)	Pump Depth (ft btoc)	Temp (Deg. C)	EC (µmhos/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (gals)	Well Volumes Purged	Flow Rate (GPM)
1148	Arrived at well	—	—	—	—	—	—	—	—	—	—	—	—
1207	Begin Purge	—	21	—	—	—	—	—	—	—	—	—	0.5
1211		14.65	|	17.32	5580	3.49	+200	2.65	116.6	cloudy brown	2.0	1.20	|
1215		16.90	|	18.67	6657	~~3.45~~	+200	0.65	94.5	cloudy brown	4.0	2.40	|
1219		—		19.50	6832	3.46	+200	0.39	85.9	cloudy brown	6.0	3.53	
1220	End Purge WELL PURGED DRY	—											
1405	SAMPLE	—	—	18.92	6772	3.42	+200	0.42	85.2	cloudy brown	—	—	—
1405	Vacated well	—	—	—	—	—	—	—	—	—	—	—	—

Fe+2 (ppm) — Taken from first bailer immediately before sampling.

WATER LEVEL (ft btoc) AT TIME OF SAMPLING: 19.30 FILTER LOT # —

Comments: Arcadis Remediation Tech onsite: 1200
Pablo Martinez back on site 1210.

PARAMETERS FOR WATER QUALITY STABILIZATION

Temperature ±1 C (1.8 F)	Conductivity ±5%
pH ±0.1	Turbidity 5 NTUs

Note: All water levels and pump depths are measured from the notch in the top of the well casing. If volatiles are detected above background in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities.

Form number Tt-O-050 (9/05)

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4213 State Street, STE 100
Santa Barbara, CA 93110
Telephone (805) 681-3100
Telefax (805) 681-3108

GROUNDWATER MONITORING WELL
FIELD DATA LOG SHEET - PURGING

DATE 8 MARCH 2006 SITE NUMBER 24

PROGRAM NAME BGMP TRIP BLANK I.D. V24TB1212

MONITORING WELL IDENTIFICATION 24-PIW-B-2

SAMPLE I.D. V24P1WB2 DUPLICATE I.D. / COLLECTION TIME —/—

STATIC WATER LEVEL (ft btoc) 11.65 TOTAL WELL DEPTH (ft btoc) 22.3

WATER COLUMN (feet) 10.7 CASING DIAMETER (in) 2

WELL VOLUME (V) (gals) 1.8 3 V (gals) 5.4 BAILER BOX # 204

PURGING DEVICE 2" SUBMERSIBLE GRUNDFOS PUMP

SAMPLING DEVICE DISPOSABLE TEFLON BAILER

PID READING IN CASING (ppm) (initial) 1.3 (vented to) 0.0

PID READING IN BREATHING ZONE (ppm) (initial) 0.0 (vented to) 0.0

SAMPLER'S SIGNATURE

Time	Activity	Water Level (ft btoc)	Pump Depth (ft btoc)	Temp (Deg. C)	EC (µmhos/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (gals)	Well Volumes Purged	Flow Rate (GPM)
1240	Arrived at well	—	—	—	—	—	—	—	—	—	—	—	—
1248	Begin Purge	—	22	—	—	—	—	—	—	—	—	—	0.5
1253		13.91	|	18.08	6860	3.42	+200	1.34	94.1	cloudy brown	2.5	0.40	|
1258		17.25	|	19.07	7397	3.51	+200	0.41	77.3	cloudy brown	5.0	2.78	|
1303	End purge	21.80	|	19.73	7481	3.50	+200	0.27	77.6	cloudy brown	7.5	4.20	
1304	WELL PURGED DRY												
1415	SAMPLE	—	—	19.59	7251	3.39	+200	1.66	72.7	cloudy brown	—	—	—
1430	Vacated well	—	—	—	—	—	—	—	—	—	—	—	—

Fe+2 (ppm) — Taken from first bailer immediately before sampling.

WATER LEVEL (ft btoc) AT TIME OF SAMPLING: 19.95 FILTER LOT # —

Comments:

PARAMETERS FOR WATER QUALITY STABILIZATION

Temperature ±1 C (1.8 F)	Conductivity ± 5%
pH ± 0.1	Turbidity 5 NTUs

Note: All water levels and pump depths are measured from the notch in the top of the well casing. If volatiles are detected above background in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities.

Form number Tt-O-050 (9/05)

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Telephone (805) 681-3100
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GROUNDWATER MONITORING WELL
FIELD DATA LOG SHEET - PURGING

DATE 3/08/06 SITE NUMBER 24

PROGRAM NAME B6 MP TRIP BLANK I.D. V24TB1212

MONITORING WELL IDENTIFICATION 24-PMW-9

SAMPLE I.D. V24PMW9 DUPLICATE I.D. / COLLECTION TIME —/—

STATIC WATER LEVEL (ft btoc) 17.36 TOTAL WELL DEPTH (ft btoc) 19.1

WATER COLUMN (feet) 1.74 CASING DIAMETER (in) 2

WELL VOLUME (V) (gals) 0.29 3 V (gals) 0.88 BAILER BOX # 204

PURGING DEVICE 2" SUBMERSIBLE GRUNDFOS PUMP

SAMPLING DEVICE DISPOSABLE TEFLON BAILER

PID READING IN CASING (ppm) (initial) 0.0 (vented to) 0.0

PID READING IN BREATHING ZONE (ppm) (initial) 0.0 (vented to) 0.0

SAMPLER'S SIGNATURE Brett Grant

Time	Activity	Water Level (ft btoc)	Pump Depth (ft btoc)	Temp (Deg. C)	EC (µmhos/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (gals)	Well Volumes Purged	Flow Rate (GPM)
1115	Arrived at well	—	—	—	—	—	—	—	—	—	—	—	—
1119	Begin Purge	—	19	—	—	—	—	—	—	—	—	—	0.5
1120	End Purge — well Dry												
1130	Sample	—		19.11	347	6.72	175	6.97	243.5	Cloudy	—	—	—
1155	Vacated well	—	—	—	—	—	—	—	—	—	—	—	—

Fe+2 (ppm) — Taken from first bailer immediately before sampling.

WATER LEVEL (ft btoc) AT TIME OF SAMPLING: 18.06 FILTER LOT # —

Comments:

PARAMETERS FOR WATER QUALITY STABILIZATION

Temperature ±1 C (1.8 F)	Conductivity ±5%
pH ±0.1	Turbidity 5 NTUs

Note: All water levels and pump depths are measured from the notch in the top of the well casing. If volatiles are detected above background in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities.

Form number Tt-O-050 (9/05)

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Santa Barbara, CA 93110
Telephone (805) 681-3100
Telefax (805) 681-3108

GROUNDWATER MONITORING WELL
FIELD DATA LOG SHEET - PURGING

DATE 3/7/06 SITE NUMBER 24 PURGING DEVICE MICROPURGE DEDICATED PUMP

PROGRAM NAME BEMP TRIP BLANK I.D. V24TB0211 SAMPLING DEVICE MICROPURGE DEDICATED PUMP

MONITORING WELL IDENTIFICATION 24-MW-9A PID READING IN CASING (ppm) (initial) 0.0 (vented to) 0.0

SAMPLE I.D. V24MW9A DUPLICATE I.D. / COLLECTION TIME -/- PID READING IN BREATHING ZONE (ppm) (initial) 0.0 (vented to) 0.0

STATIC WATER LEVEL (ft btoc) 20.84 TOTAL WELL DEPTH (ft btoc) 38.3

WATER COLUMN (feet) 17.5 TUBING DIAMETER (in) 1/4 SAMPLER'S SIGNATURE

PUMP & TUBING (V) (L) 32.5(5.3) +100= 0.27 5 V (L) 1.36

Time	Activity	Water Level (ft btoc)	Temp (Deg. C)	EC (µmhos/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (L)	Pump & Tubing Volumes Purged	Flow Rate (LPM)
1343	Arrived at well											
1405	Begin Purge											0.20
1407	|	20.94	17.99	588	6.17	21.7	8.12	78	Clear	0.40	1.48	|
1409	|	21.20	18.39	578	6.24	25.0	8.50	85	Clear	0.80	2.96	|
1411	|	21.44	18.51	576	6.24	26.8	8.53	93	Clear	1.20	4.44	|
1413	|	21.70	18.46	573	6.26	28.1	8.43	95	clear	1.60	5.92	|
1414	End Purge											
1420	Sample											
1423	Vacated well											

Fe+2 (ppm) — Taken immediately before sampling.

WATER LEVEL (ft btoc) AT TIME OF SAMPLING: 22.26 FILTER LOT # —

Comments:

PARAMETERS FOR WATER QUALITY STABILIZATION

Temperature ±1 C (1.8 F)	Conductivity ± 5%
pH ± 0.1	Turbidity 5 NTUs

Note: All water levels and pump depths are measured from the notch in the top of the well casing. If volatiles are detected above background in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities.

Form number Tt-O-049 (9/05)

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TETRA TECH, INC.
4213 State Street, STE 100
Santa Barbara, CA 93110
Telephone (805) 681-3100
Telefax (805) 681-3108

GROUNDWATER MONITORING WELL FIELD DATA LOG SHEET - PURGING

DATE 3/7/06 SITE NUMBER 24
PROGRAM NAME BGMP TRIP BLANK I.D. V24TB1211
MONITORING WELL IDENTIFICATION 24-MW-9B
SAMPLE I.D. V24MW9B DUPLICATE I.D. / COLLECTION TIME -/-
STATIC WATER LEVEL (ft btoc) 19.83 TOTAL WELL DEPTH (ft btoc) 64.6
WATER COLUMN (feet) 44.8 TUBING DIAMETER (in) 1/4
PUMP & TUBING (V) (L) 58.5 (5.3) + 100 = 0.41 5 V (L) 2.05

PURGING DEVICE MICROPURGE DEDICATED PUMP
SAMPLING DEVICE MICROPURGE DEDICATED PUMP
PID READING IN CASING (ppm) (initial) 0.0 (vented to) 0.0
PID READING IN BREATHING ZONE (ppm) (initial) 0.0 (vented to) 0.0
SAMPLER'S SIGNATURE [signature] [signature]

Time	Activity	Water Level (ft btoc)	Temp (Deg. C)	EC (µmhos/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (L)	Pump & Tubing Volumes Purged	Flow Rate (LPM)
1425	Arrived at well	—	—	—	—	—	—	—	—	—	—	—
1434	Begin Purge	—	—	—	—	—	—	—	—	—	—	0.30
1436	|	19.94	18.48	839	6.01	6.14	7.64	115	Clear	0.60	1.46	|
1438	|	20.14	18.52	841	5.96	2.32	7.34	117	Clear	1.20	2.92	|
1440	|	20.58	18.71	840	5.93	2.35	7.17	119	Clear	1.80	4.39	|
1441	End Purge	—	—	—	—	—	—	—	—	—	—	—
1445	Sample	—	—	—	—	—	—	—	—	—	—	—
1451	Vacated well	—	—	—	—	—	—	—	—	—	—	—

Fe+2 (ppm) — Taken immediately before sampling.
WATER LEVEL (ft btoc) AT TIME OF SAMPLING: 21.03 FILTER LOT # —
Comments:

PARAMETERS FOR WATER QUALITY STABILIZATION
Temperature ±1 C (1.8 F) Conductivity ±5%
pH ±0.1 Turbidity 5 NTUs

Note: All water levels and pump depths are measured from the notch in the top of the well casing. If volatiles are detected above background in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities.

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GROUNDWATER MONITORING WELL
FIELD DATA LOG SHEET - PURGING

DATE 3/8/06 SITE NUMBER 24 PURGING DEVICE 2" SUBMERSIBLE GRUNDFOS PUMP

PROGRAM NAME B6MP TRIP BLANK I.D. V24TB1212 SAMPLING DEVICE DISPOSABLE TEFLON BAILER

MONITORING WELL IDENTIFICATION 24-PMW-10 PID READING IN CASING (ppm) (initial) 0.0 (vented to) 0.0

SAMPLE I.D. V24PMW10 DUPLICATE I.D. / COLLECTION TIME -/- PID READING IN BREATHING ZONE (ppm) (initial) 0.0 (vented to) 0.0

STATIC WATER LEVEL (ft btoc) 8.75 TOTAL WELL DEPTH (ft btoc) 19.3

WATER COLUMN (feet) 10.6 CASING DIAMETER (in) 2 SAMPLER'S SIGNATURE

WELL VOLUME (V) (gals) 1.77 3 V (gals) 5.32 BAILER BOX # 205

Time	Activity	Water Level (ft btoc)	Pump Depth (ft btoc)	Temp (Deg. C)	EC (µmhos/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (gals)	Well Volumes Purged	Flow Rate (GPM)
0920	Arrived at well	—	—	—	—	—	—	—	—	—	—	—	—
0932	Begin Purge	—	19	—	—	—	—	—	—	—	—	—	0.5
0934		10.24		11.81	303	7.46	8.22	11.13	220.4	clear	1.0	0.56	
0936		11.88		13.60	393	7.45	21.2	10.39	214.8	clear	2.0	1.12	
0938		13.14		15.51	545	7.00	38.9	9.90	191.0	clear	3.0	1.69	
0940		14.15		16.16	557	6.93	20.2	9.77	185.7	clear	4.0	2.25	
0942		15.45		16.41	566	6.89	43.5	9.77	178.1	cloudy	5.0	2.82	
0944		16.49		16.72	576	6.90	55.6	9.53	171.8	cloudy	6.0	3.40	
0946		17.91		17.05	599	6.88	23.9	9.41	169.7	cloudy	7.0	3.95	
0947	End Purge - Well Dry												
0410	Sample	—	—	17.84	620	7.00	97.5	6.91	286.5	—	—	—	—
1419	Vacated well	—	—	—	—	—	—	—	—	—	—	—	—

Fe+2 (ppm) — Taken from first bailer immediately before sampling.

WATER LEVEL (ft btoc) AT TIME OF SAMPLING: 15.52 FILTER LOT # A1041905A

Comments:

PARAMETERS FOR WATER QUALITY STABILIZATION

Temperature ±1 C (1.8 F)	Conductivity ±5%
pH ±0.1	Turbidity 5 NTUs

Note: All water levels and pump depths are measured from the notch in the top of the well casing. If volatiles are detected above background in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities.

Form number Tt-O-050 (9/05)

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4213 State Street, STE 100
Santa Barbara, CA 93110
Telephone (805) 681-3100
Telefax (805) 681-3108

GROUNDWATER MONITORING WELL
FIELD DATA LOG SHEET - PURGING

DATE 3/14/06 SITE NUMBER 24 PURGING DEVICE 2" SUBMERSIBLE GRUNDFOS PUMP

PROGRAM NAME BGMP TRIP BLANK I.D. V24TB1221 SAMPLING DEVICE DISPOSABLE TEFLON BAILER

MONITORING WELL IDENTIFICATION 24-MW-10A PID READING IN CASING (ppm) (initial) 0.0 (vented to) 0.0

SAMPLE I.D. V24MW10A DUPLICATE I.D. / COLLECTION TIME ~ 1 ~ PID READING IN BREATHING ZONE (ppm) (initial) 0.0 (vented to) 0.0

STATIC WATER LEVEL (ft btoc) 26.04 TOTAL WELL DEPTH (ft btoc) 38.1

WATER COLUMN (feet) 12.1 CASING DIAMETER (in) 2 SAMPLER'S SIGNATURE

WELL VOLUME (V) (gals) 7.9(max) 2.0 3 V (gals) 6.0 BAILER BOX # 206

Time	Activity	Water Level (ft btoc)	Pump Depth (ft btoc)	Temp (Deg. C)	EC (µmhos/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (gals)	Well Volumes Purged	Flow Rate (GPM)
1130	Arrived at well	—	—	—	—	—	—	—	—	—	—	—	—
1144	Begin Purge	—	37	—	—	—	—	—	—	—	—	—	0.5
1147		29.85	↓	14.12	398	8.01	82.5	7.77	79.6	Cloudy	1.5	0.75	↓
1150		32.06		17.63	1034	6.88	54.1	7.22	74.4	Cloudy	3.0	1.50	
1153		34.00		18.33	1062	6.36	36.0	7.12	78.4	Cloudy	4.5	2.25	
1156		**	↓	18.71	1088	6.14	46.2	7.31	69.4	Cloudy	6.0	3.00	↓
1157	End Purge;	well	purged	dry.									
1430	SAMPLE	—	—	18.54	1127	7.30	+200	6.50	-17.6	cloudy	—	—	—
1445	Vacated well	—	—	—	—	—	—	—	—	—	—	—	—

Fe+2 (ppm) — Taken from first bailer immediately before sampling.

WATER LEVEL (ft btoc) AT TIME OF SAMPLING: 32.65 FILTER LOT # 105,1342

Comments: ** Could not obtain water level — sonde could not bypass check valve on pump.

PARAMETERS FOR WATER QUALITY STABILIZATION

Temperature ±1 C (1.8 F)	Conductivity ±5%
pH ±0.1	Turbidity 5 NTUs

Note: All water levels and pump depths are measured from the notch in the top of the well casing. If volatiles are detected above background in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities.

Form number Tt-O-050 (9/05)

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TETRA TECH, INC.
4213 State Street, STE 100
Santa Barbara, CA 93110
Telephone (805) 681-3100
Telefax (805) 681-3108

GROUNDWATER MONITORING WELL
FIELD DATA LOG SHEET - PURGING

DATE 3/6/06 SITE NUMBER 24 PURGING DEVICE MICROPURGE DEDICATED PUMP

PROGRAM NAME BGMP TRIP BLANK I.D. V24TB1209 SAMPLING DEVICE MICROPURGE DEDICATED PUMP

MONITORING WELL IDENTIFICATION 24-MW-10B PID READING IN CASING (ppm) (initial) 0.0 (vented to) 0.0

SAMPLE I.D. V24MW10B DUPLICATE I.D. / COLLECTION TIME V99W627/1700 PID READING IN BREATHING ZONE (ppm) (initial) 0.0 (vented to) 0.0

STATIC WATER LEVEL (ft btoc) 23.75 TOTAL WELL DEPTH (ft btoc) 63.3

WATER COLUMN (feet) 39.6 TUBING DIAMETER (in) 1/4 SAMPLER'S SIGNATURE [signature] Jagadeesan

PUMP & TUBING (V) (L) 0.41 5 V (L) 2.05

Time	Activity	Water Level (ft btoc)	Temp (Deg. C)	EC (µmhos/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (L)	Pump & Tubing Volumes Purged	Flow Rate (LPM)
1059	Arrived at well											
1104	Begin Purge											0.12
1109		24.05	13.16	1167	6.06	2.48	7.81	15.7	clear	0.60	1.46	
1114		24.20	13.80	1233	5.98	2.19	7.93	15.9	clear	1.20	2.92	
1119		24.33	14.46	1283	5.93	1.25	8.01	15.7	clear	1.80	4.39	
1124		24.40	14.33	1286	5.92	1.15	7.93	13.9	clear	2.40	5.85	
1125	End Purge											
1130	Sample											
1150	Vacated well											

Fe+2 (ppm) _____ Taken immediately before sampling.

WATER LEVEL (ft btoc) AT TIME OF SAMPLING: 24.40 FILTER LOT # A1053274Y

Comments: rain during sample/purge

PARAMETERS FOR WATER QUALITY STABILIZATION

Temperature ±1 C (1.8 F)	Conductivity ± 5%
pH ± 0.1	Turbidity 5 NTUs

Note: All water levels and pump depths are measured from the notch in the top of the well casing. If volatiles are detected above background in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities.

Form number Tt-O-049 (9/05)

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4213 State Street, STE 100
Santa Barbara, CA 93110
Telephone (805) 681-3100
Telefax (805) 681-3108

GROUNDWATER MONITORING WELL
FIELD DATA LOG SHEET - PURGING

DATE 3/10/06 SITE NUMBER 24

PROGRAM NAME BGMP TRIP BLANK I.D. V24TB1215

MONITORING WELL IDENTIFICATION 24-PMW-11

SAMPLE I.D. V24PMW11 DUPLICATE I.D. / COLLECTION TIME — / —

STATIC WATER LEVEL (ft btoc) 6.35 TOTAL WELL DEPTH (ft btoc) 19.6

WATER COLUMN (feet) 13.25 TUBING DIAMETER (in) 1/4

PUMP & TUBING (V) (L) 0.18 5 V (L) 0.90

PURGING DEVICE MICROPURGE DEDICATED PUMP

SAMPLING DEVICE MICROPURGE DEDICATED PUMP

PID READING IN CASING (ppm) (initial) 0.0 (vented to) 0.0

PID READING IN BREATHING ZONE (ppm) (initial) 0.0 (vented to) 0.0

SAMPLER'S SIGNATURE M. [illegible]
C. [illegible]

Time	Activity	Water Level (ft btoc)	Temp (Deg. C)	EC (µmhos/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (L)	Pump & Tubing Volumes Purged	Flow Rate (LPM)
1217	Arrived at well	—	—	—	—	—	—	—	—	—	—	—
1233	Begin Purge	—	—	—	—	—	—	—	—	—	—	0.18
1235		7.51	16.24	756	6.38	19.3	3.73	202.0	clear	0.36	2.0	↓
1237		7.74	16.10	722	6.44	17.8	3.62	207.8	clear	0.72	4.0	↓
1239		7.96	16.15	705	6.33	14.2	3.48	238.4	clear	1.08	6.0	↓
1240	End Purge	—	—	—	—	—	—	—	—	—	—	—
1245	Sample	—	—	—	—	—	—	—	—	—	—	—
1255	Vacated well	—	—	—	—	—	—	—	—	—	—	—

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Fe+2 (ppm) — Taken immediately before sampling.

WATER LEVEL (ft btoc) AT TIME OF SAMPLING: 8.19 FILTER LOT # A10532744

Comments:

PARAMETERS FOR WATER QUALITY STABILIZATION

Temperature ±1 C (1.8 F)	Conductivity ± 5%
pH ± 0.1	Turbidity 5 NTUs

Note: All water levels and pump depths are measured from the notch in the top of the well casing. If volatiles are detected above background in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities.

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4213 State Street, STE 100
Santa Barbara, CA 93110
Telephone (805) 681-3100
Telefax (805) 681-3108

GROUNDWATER MONITORING WELL
FIELD DATA LOG SHEET - PURGING

DATE 3/7/06 SITE NUMBER 24 PURGING DEVICE 2" SUBMERSIBLE GRUNDFOS PUMP

PROGRAM NAME BGMP TRIP BLANK I.D. V24TB1214 SAMPLING DEVICE DISPOSABLE TEFLON BAILER

MONITORING WELL IDENTIFICATION 24-MW-11A PID READING IN CASING (ppm) (initial) 0.1 (vented to) 0.0

SAMPLE I.D. V24MW11A DUPLICATE I.D. / COLLECTION TIME —/— PID READING IN BREATHING ZONE (ppm) (initial) 0.0 (vented to) 0.0

STATIC WATER LEVEL (ft btoc) 24.39 TOTAL WELL DEPTH (ft btoc) 36.9

WATER COLUMN (feet) ~~9.1~~ 12.5 CASING DIAMETER (in) 2 SAMPLER'S SIGNATURE

WELL VOLUME (V) (gals) 1.50 3 V (gals) 4.5 BAILER BOX # 205

Time	Activity	Water Level (ft btoc)	Pump Depth (ft btoc)	Temp (Deg. C)	EC (µmhos/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (gals)	Well Volumes Purged	Flow Rate (GPM)
0940	Arrived at well	—	—	—	—	—	—	—	—	—	—	—	—
0951	Begin Purge	—	36	—	—	—	—	—	—	—	—	—	0.5
0954		28.34		14.60	333	7.52	6.29	10.74	273.2	Clear	1.5	1.0	
0957		30.07		16.30	861	7.28	14.2	7.28	307.7	Clear	3.0	2.0	
~~1000~~		**		17.42	929	6.19	14.1	7.05	267.9	Clear	4.5	3.0	
1003		**		16.17	962	6.16	10.6	7.00	215.3	Clear	6.0	4.0	
1006		**		18.93	1020	6.16	9.65	6.54	196.6	Clear	7.5	5.0	
1008	Well Dry - end Purge												
1325	Sample	34.18	—	18.68	988	6.39	70.9	6.22	215.4	—			
1335	Vacated well	—	—	—	—	—	—	—	—	—	—	—	—

Fe+2 (ppm) — Taken from first bailer immediately before sampling.

WATER LEVEL (ft btoc) AT TIME OF SAMPLING: 24.18 FILTER LOT # A104190599

Comments: ** could not get water level probe past check valve.

PARAMETERS FOR WATER QUALITY STABILIZATION

Temperature ±1 C (1.8 F)	Conductivity ±5%
pH ±0.1	Turbidity 5 NTUs

Note: All water levels and pump depths are measured from the notch in the top of the well casing. If volatiles are detected above background in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities.

Form number Tt-O-050 (9/05)

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4213 State Street, STE 100
Santa Barbara, CA 93110
Telephone (805) 681-3100
Telefax (805) 681-3108

GROUNDWATER MONITORING WELL
FIELD DATA LOG SHEET - PURGING

DATE 3/9/06 SITE NUMBER 24

PROGRAM NAME B6MP TRIP BLANK I.D. V24TB1214

MONITORING WELL IDENTIFICATION 24-MW-11B

SAMPLE I.D.: V24MW11B DUPLICATE I.D. / COLLECTION TIME -/-

STATIC WATER LEVEL (ft btoc) 34.39 TOTAL WELL DEPTH (ft btoc) 61.9

WATER COLUMN (feet) 27.5 CASING DIAMETER (in) 4

WELL VOLUME (V) (gals) 17.8 3 V (gals) 53.6 BAILER BOX # 205

PURGING DEVICE 2" SUBMERSIBLE GRUNDFOS PUMP

SAMPLING DEVICE DISPOSABLE TEFLON BAILER

PID READING IN CASING (ppm) (initial) 0.2 (vented to) 0.0

PID READING IN BREATHING ZONE (ppm) (initial) 0.0 (vented to) 0.0

SAMPLER'S SIGNATURE

Time	Activity	Water Level (ft btoc)	Pump Depth (ft btoc)	Temp (Deg. C)	EC (µmhos/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (gals)	Well Volumes Purged	Flow Rate (GPM)
1012	Arrived at well	—	—	—	—	—	—	—	—	—	—	—	—
1019	Begin Purge	—	61	—	—	—	—	—	—	—	—	—	0.75
1024	|	49.60	|	18.37	1044	7.06	14.4	4.32	226.4	Clear	3.75	0.21	|
1029	|	43.10	|	18.83	1060	7.30	9.74	4.12	199.0	Clear	7.5	0.42	|
1034	|	46.16	|	19.05	1061	7.37	8.01	4.23	185.6	Clear	11.25	0.63	|
1039	|	49.09	|	19.26	1038	7.37	14.1 pc	4.24	172.9	Clear	15.0	0.84	|
1044	|	51.81	|	19.24	913	9.94	15.6 pc	3.73	67.9	Clear	18.75	1.05	|
1049	|	54.47	|	19.59	917	10.09	18.6	3.82	32.3	Clear	22.5	1.26	|
1050	Purge paused due to pump problem												↓
1105	Begin Purge	—	—	—	—	—	—	—	—	—	—	—	—
1110	|	55.36	|	19.19	927	9.28	11.8	4.25	31.3	Cloudy	26.25	1.47	0.75
1115	|	57.77	|	19.62	940	7.36	58.8	4.93	110.7	Cloudy	30.0	1.68	↓
1120	|	59.02	|	19.39	973	6.64	34.3	4.16	140.2	Cloudy	33.75	1.89	↓
—	Vacated well	—	—	—	—	—	—	—	—	—	—	—	—

Fe+2 (ppm) — Taken from first bailer immediately before sampling.

WATER LEVEL (ft btoc) AT TIME OF SAMPLING: 52.27 FILTER LOT # A1041905?

Comments:

PARAMETERS FOR WATER QUALITY STABILIZATION

Temperature ±1 C (1.8 F)	Conductivity ± 5%
pH ± 0.1	Turbidity 5 NTUs

Note: All water levels and pump depths are measured from the notch in the top of the well casing. If volatiles are detected above background in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities.

Form number Tt-O-050 (9/05)

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4213 State Street, STE 100
Santa Barbara, CA 93110
Telephone (805) 681-3100
Telefax (805) 681-3108

GROUNDWATER MONITORING WELL
FIELD DATA LOG SHEET - PURGING

DATE 3/9/06 SITE NUMBER 24

PROGRAM NAME B6MP TRIP BLANK I.D. V24TB1214

MONITORING WELL IDENTIFICATION 24-MW-11B

SAMPLE I.D. V24MW11B DUPLICATE I.D. / COLLECTION TIME —/—

STATIC WATER LEVEL (ft btoc) 34.39 TOTAL WELL DEPTH (ft btoc) 61.9

WATER COLUMN (feet) 27.5 CASING DIAMETER (in) 4

WELL VOLUME (V) (gals) 17.8 3 V (gals) 53.6 BAILER BOX # 205

PURGING DEVICE 2" SUBMERSIBLE GRUNDFOS PUMP

SAMPLING DEVICE DISPOSABLE TEFLON BAILER

PID READING IN CASING (ppm) (initial) 0.2 (vented to) 0.0

PID READING IN BREATHING ZONE (ppm) (initial) 0.0 (vented to) 0.0

SAMPLER'S SIGNATURE Brent Stone

Time	Activity	Water Level (ft btoc)	Pump Depth (ft btoc)	Temp (Deg. C)	EC (µmhos/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (gals)	Well Volumes Purged	Flow Rate (GPM)
—	Arrived at well	—	—	—	—	—	—	—	—	—	—	—	—
—	Begin Purge	—	61	—	—	—	—	—	—	—	—	—	0.75
1025	—	60.27	—	19.63	973	6.56	51.2	3.91	141.0	cloudy	37.5	2.10	0.75
1028	End	Purge	—	Well Dry									
1305	Sample	52.27	—	18.89	934	6.50	166	4.30	231.2				
1317	Vacated well	—	—	—	—	—	—	—	—	—	—	—	—

Fe+2 (ppm) — Taken from first bailer immediately before sampling.

WATER LEVEL (ft btoc) AT TIME OF SAMPLING: 52.27 FILTER LOT # A1041905G

Comments:

PARAMETERS FOR WATER QUALITY STABILIZATION

Temperature ±1 C (1.8 F)	Conductivity ± 5%
pH ± 0.1	Turbidity 5 NTUs

Note: All water levels and pump depths are measured from the notch in the top of the well casing. If volatiles are detected above background in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities.

Form number Tt-O-050 (9/05)

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Santa Barbara, CA 93110
Telephone (805) 681-3100
Telefax (805) 681-3108

GROUNDWATER MONITORING WELL
FIELD DATA LOG SHEET - PURGING

DATE 3/6/06 SITE NUMBER 24 PURGING DEVICE MICROPURGE DEDICATED PUMP

PROGRAM NAME BGMP TRIP BLANK I.D. V24TB1209 SAMPLING DEVICE MICROPURGE DEDICATED PUMP

MONITORING WELL IDENTIFICATION 24-MW-12A PID READING IN CASING (ppm) (initial) 0.0 (vented to) 0.0

SAMPLE I.D. V24MW12A DUPLICATE I.D. / COLLECTION TIME -1- PID READING IN BREATHING ZONE (ppm) (initial) 0.0 (vented to) 0.0

STATIC WATER LEVEL (ft btoc) 19.30 TOTAL WELL DEPTH (ft btoc) 36.1

WATER COLUMN (feet) 16.8 TUBING DIAMETER (in) 1/4 SAMPLER'S SIGNATURE

PUMP & TUBING (V) (L) 0.26 5 V (L) 1.3

Time	Activity	Water Level (ft btoc)	Temp (Deg. C)	EC (µmhos/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (L)	Pump & Tubing Volumes Purged	Flow Rate (LPM)
1210	Arrived at well	—	—	—	—	—	—	—	—	—	—	—
1232	Begin Purge	—	—	—	—	—	—	—	—	—	—	0.14
1236		20.30	12.96	1357	6.56	5.10	6.68	-12.8	clear	0.56	2.15	0.14
1241	End Purge due to equipment failure								—			
1443	Begin Purge (MP20)								—			0.15
1447		20.94	17.62	1590	6.38	7.14	4.46	128	clear	0.60	2.30	↓
1451		21.39	17.69	1590	6.40	5.26	4.50	110	clear	1.20	4.61	
1455		21.72	17.79	1590	6.41	3.21	4.56	106	clear	1.80	6.92	↓
1456	End Purge	—	—	—	—	—	—	—	—	—	—	—
1500	Sample	—	—	—	—	—	—	—	—	—	—	—
1510	Vacated well	—	—	—	—	—	—	—	—	—	—	—

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Fe+2 (ppm) — Taken immediately before sampling.

WATER LEVEL (ft btoc) AT TIME OF SAMPLING: 21.93 FILTER LOT # A10532744

PARAMETERS FOR WATER QUALITY STABILIZATION
Temperature ±1 C (1.8 F) Conductivity ±5%
pH ±0.1 Turbidity 5 NTUs

Comments: Rain during purge & sample.
VSI failure during purge — switched to MP20 unit.

Note: All water levels and pump depths are measured from the notch in the top of the well casing. If volatiles are detected above background in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities.

TETRA TECH, INC.
4213 State Street, STE 100
Santa Barbara, CA 93110
Telephone (805) 681-3100
Telefax (805) 681-3108

GROUNDWATER MONITORING WELL
FIELD DATA LOG SHEET - PURGING

DATE 3/3/06 SITE NUMBER 24 PURGING DEVICE MICROPURGE DEDICATED PUMP

PROGRAM NAME BGMP TRIP BLANK I.D. V24TB1209 SAMPLING DEVICE MICROPURGE DEDICATED PUMP

MONITORING WELL IDENTIFICATION 24-MW-12B PID READING IN CASING (ppm) (initial) 0.0 (vented to) 0.0

SAMPLE I.D. V24MW12B DUPLICATE I.D. / COLLECTION TIME -/- PID READING IN BREATHING ZONE (ppm) (initial) 0.0 (vented to) 0.0

STATIC WATER LEVEL (ft btoc) 21.17 TOTAL WELL DEPTH (ft btoc) ~~56.4~~ 56.0

WATER COLUMN (feet) ~~34.7~~ 34.4 TUBING DIAMETER (in) 1/4 SAMPLER'S SIGNATURE Jongsok Choi

PUMP & TUBING (V) (L) 0.32 5 V (L) 1.85

Time	Activity	Water Level (ft btoc)	Temp (Deg. C)	EC (µmhos/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (L)	Pump & Tubing Volumes Purged	Flow Rate (LPM)
1510	Arrived at well											
1518	Begin Purge											0.21
1521		21.61	18.67	1207	6.22	2.45	0.64	90	clear	0.63	1.70	
1524		21.79	18.22	1205	6.20	2.87	0.49	73	clear	1.26	3.40	
1527		21.91	18.14	1205	6.19	2.85	0.45	64	clear	1.89	5.10	
1528	End Purge											
1535	Sample											
1545	Vacated well											

Fe+2 (ppm) — Taken immediately before sampling.

WATER LEVEL (ft btoc) AT TIME OF SAMPLING: 22.11 FILTER LOT # A1032744

Comments: TD - rechecked and got 56.0

PARAMETERS FOR WATER QUALITY STABILIZATION

Temperature ±1 C (1.8 F)	Conductivity ±5%
pH ±0.1	Turbidity 5 NTUs

Note: All water levels and pump depths are measured from the notch in the top of the well casing. If volatiles are detected above background in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities.

Form number Tt-O-049 (9/05)

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GROUNDWATER MONITORING WELL
FIELD DATA LOG SHEET - PURGING

DATE 3/7/06 SITE NUMBER 24 PURGING DEVICE 2" SUBMERSIBLE GRUNDFOS PUMP

PROGRAM NAME ISGMP TRIP BLANK I.D. V24TB1211 SAMPLING DEVICE DISPOSABLE TEFLON BAILER

MONITORING WELL IDENTIFICATION 24-PMW-13 PID READING IN CASING (ppm) (initial) 0.0 (vented to) 0.0

SAMPLE I.D. V24PMW13 DUPLICATE I.D. / COLLECTION TIME ~ 1 ~ PID READING IN BREATHING ZONE (ppm) (initial) 0.0 (vented to) 0.0

STATIC WATER LEVEL (ft btoc) 8.31 TOTAL WELL DEPTH (ft btoc) 22.7

WATER COLUMN (feet) 14.4 CASING DIAMETER (in) 2 SAMPLER'S SIGNATURE

WELL VOLUME (V) (gals) 2.35 3 V (gals) 7.05 BAILER BOX # 204

Time	Activity	Water Level (ft btoc)	Pump Depth (ft btoc)	Temp (Deg. C)	EC (µmhos/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (gals)	Well Volumes Purged	Flow Rate (GPM)
1105	Arrived at well	—	—	—	—	—	—	—	—	—	—	—	—
1115	Begin Purge	—	22	—	—	—	—	—	—	—	—	—	0.5
1118		13.18	|	14.51	555	6.69	>200	8.52	-26.4	Cloudy brown	1.5	0.64	|
1121		13.21	|	14.57	452	6.75	152	13.24	2.5	Cloudy	3.0	1.28	|
1124		13.95	|	15.57	379	6.73	94.3	6.83	0.1	Cloudy	4.5	1.91	|
1127		15.53	|	16.93	337	6.96	128	4.12	-16.0	Cloudy	6.0	2.55	|
1130		16.91	|	17.31	349	6.88	+200	4.22	-14.5	Cloudy	7.5	3.19	|
1133		17.84	|	17.76	347	6.87	+200	4.72	-19.1	Cloudy	9.0	3.83	|
1136		18.84	|	17.87	339	6.80	+200	5.76	-15.3	Cloudy	10.5	4.47	|
1139		19.38	↓	17.77	337	6.76	+200	6.69	-11.6	Cloudy	12.0	5.11	↓
1140	End Purge												
1410	Sample	8.41	~	17.25	338	7.25	71.7	7.62	-12.4	Cloudy			
1425	Vacated well	—	—	—	—	—	—	—	—	—	—	—	—

Fe+2 (ppm) — Taken from first bailer immediately before sampling.

WATER LEVEL (ft btoc) AT TIME OF SAMPLING: 8.46 FILTER LOT # A10532744

Comments: Recharge to 11.19' prior to sample

PARAMETERS FOR WATER QUALITY STABILIZATION

Temperature ±1 C (1.8 F)	Conductivity ± 5%
pH ± 0.1	Turbidity 5 NTUs

Note: All water levels and pump depths are measured from the notch in the top of the well casing. If volatiles are detected above background in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities.

Form number Tt-O-050 (9/05)

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Santa Barbara, CA 93110
Telephone (805) 681-3100
Telefax (805) 681-3108

GROUNDWATER MONITORING WELL
FIELD DATA LOG SHEET - PURGING

DATE 3/7/06 SITE NUMBER 24 PURGING DEVICE 2" SUBMERSIBLE GRUNDFOS PUMP

PROGRAM NAME BGMP TRIP BLANK I.D. V24TB1211 SAMPLING DEVICE DISPOSABLE TEFLON BAILER

MONITORING WELL IDENTIFICATION 24-MW-13B PID READING IN CASING (ppm) (initial) 5.1 (vented to) 0.1

SAMPLE I.D. ~~V24TB~~ V24MW13B DUPLICATE I.D. / COLLECTION TIME -/- PID READING IN BREATHING ZONE (ppm) (initial) 0.0 (vented to) 0.0

STATIC WATER LEVEL (ft btoc) 64.53 TOTAL WELL DEPTH (ft btoc) 68.5

WATER COLUMN (feet) 4.0 CASING DIAMETER (in) 4 SAMPLER'S SIGNATURE

WELL VOLUME (V) (gals) 2.6 3 V (gals) 7.8 BAILER BOX # 204

Time	Activity	Water Level (ft btoc)	Pump Depth (ft btoc)	Temp (Deg. C)	EC (µmhos/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (gals)	Well Volumes Purged	Flow Rate (GPM)
1150	Arrived at well	—	—	—	—	—	—	—	—	—	—	—	—
1212	Begin Purge	—	64	—	—	—	—	—	—	—	—	—	0.5
1215		66.30	↓	17.40	705	6.86	126	7.10	0.4	Cloudy	1.5	0.58	↓
1218		67.32	↓	18.74	782	6.70	187	4.93	-5.7	Cloudy	3.0	1.15	↓
1219	Well purged DRY												
1230	Sample												
1300	Vacated well	—	—	—	—	—	—	—	—	—	—	—	—

Fe+2 (ppm) — Taken from first bailer immediately before sampling.

WATER LEVEL (ft btoc) AT TIME OF SAMPLING: 65.72 FILTER LOT # A1041405 9

Comments: No water quality parameters recorded at time of sampling due to insufficient water column.

PARAMETERS FOR WATER QUALITY STABILIZATION

Temperature ±1 C (1.8 F)	Conductivity ± 5%
pH ± 0.1	Turbidity 5 NTUs

Note: All water levels and pump depths are measured from the notch in the top of the well casing. If volatiles are detected above background in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities.

Form number Tt-O-050 (9/05)

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Santa Barbara, CA 93110
Telephone (805) 681-3100
Telefax (805) 681-3108

GROUNDWATER MONITORING WELL
FIELD DATA LOG SHEET - PURGING

DATE 3/9/06 SITE NUMBER 24 PURGING DEVICE ~~2" SUBMERSIBLE GRUNDFOS PUMP~~ Disposable bailer, Teflon

PROGRAM NAME BGMP TRIP BLANK I.D. V24TB31214 SAMPLING DEVICE DISPOSABLE TEFLON BAILER

MONITORING WELL IDENTIFICATION 24-MW-14A PID READING IN CASING (ppm) (initial) 0.0 (vented to) 0.0

SAMPLE I.D. V24MW14A DUPLICATE I.D. / COLLECTION TIME —1— PID READING IN BREATHING ZONE (ppm) (initial) 0.0 (vented to) 0.0

STATIC WATER LEVEL (ft btoc) 37.30 TOTAL WELL DEPTH (ft btoc) 38.7

WATER COLUMN (feet) 1.3 CASING DIAMETER (in) 2 SAMPLER'S SIGNATURE Brent Stone

WELL VOLUME (V) (gals) 0.21 3 V (gals) 0.65 BAILER BOX # 205

Time	Activity	Water Level (ft btoc)	Pump Depth (ft btoc)	Temp (Deg. C)	EC (µmhos/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged ~~(gals)~~ L	Well Volumes Purged	Flow Rate (GPM)
0930	Arrived at well	—	—	—	—	—	—	—	—	—	—	—	—
0935	Begin ~~Purge~~ bail	—	—	—	—	—	—	—	—	—	—	—	—
0937	—	—	—	19.85	1085	6.04	20.0	3.22	179.3	clear	1.0	1.25	—
0939	well baled dry												
1405	Sample	37.38	—	19.15	1077	6.18	58.6	3.30	193.6	—			
1525	Vacated well	—	—	—	—	—	—	—	—	—	—	—	—

Fe+2 (ppm) — Taken from first bailer immediately before sampling.

WATER LEVEL (ft btoc) AT TIME OF SAMPLING: 37.38 FILTER LOT # AL04190549

Comments: bailed well. Only enough volume for 1½ L amber (Diesel), VOCs and metals.

PARAMETERS FOR WATER QUALITY STABILIZATION
Temperature ±1 C (1.8 F) Conductivity ±5%
pH ±0.1 Turbidity 5 NTUs

Note: All water levels and pump depths are measured from the notch in the top of the well casing. If volatiles are detected above background in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities.

Form number Tt-O-050 (9/05)

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Telefax (805) 681-3108

GROUNDWATER MONITORING WELL
FIELD DATA LOG SHEET - PURGING

DATE 3/10/06 SITE NUMBER 24

PROGRAM NAME BGMP TRIP BLANK I.D. V24TB1215

MONITORING WELL IDENTIFICATION 24-MW-14B

SAMPLE I.D. V24MW14B DUPLICATE I.D. / COLLECTION TIME V99W633/1700

STATIC WATER LEVEL (ft btoc) 37.57 TOTAL WELL DEPTH (ft btoc) 74.8

WATER COLUMN (feet) 37.2 TUBING DIAMETER (in) 1/4

PUMP & TUBING (V) (L) 0.30 5 V (L) 1.50

PURGING DEVICE MICROPURGE DEDICATED PUMP

SAMPLING DEVICE MICROPURGE DEDICATED PUMP

PID READING IN CASING (ppm) (initial) 0.0 (vented to) 0.0

PID READING IN BREATHING ZONE (ppm) (initial) 0.0 (vented to) 0.0

SAMPLER'S SIGNATURE

Time	Activity	Water Level (ft btoc)	Temp (Deg. C)	EC (µmhos/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (L)	Pump & Tubing Volumes Purged	Flow Rate (LPM)
1125	Arrived at well											
1142	Begin Purge											0.23
1144		38.04	19.55	1409	5.92	2.58	3.87	214.1	clear	0.46	1.53	
1146		38.15	19.79	1408	5.92	1.70	3.74	228.2	clear	0.92	3.07	
1148		38.22	19.78	1408	5.93	1.68	3.78	225.6	clear	1.38	4.60	
1150		38.27	19.92	1412	5.96	1.53	3.74	230.6	clear	1.84	6.13	
1151	End Purge											
1155	Sample											
1210	Vacated well											

Fe+2 (ppm) — Taken immediately before sampling.

WATER LEVEL (ft btoc) AT TIME OF SAMPLING: 38.27 FILTER LOT # A10419059

Comments:

PARAMETERS FOR WATER QUALITY STABILIZATION

Temperature ±1 C (1.8 F)	Conductivity ±5%
pH ±0.1	Turbidity 5 NTUs

Note: All water levels and pump depths are measured from the notch in the top of the well casing. If volatiles are detected above background in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities.

Form number Tt-O-049 (9/05)

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Santa Barbara, CA 93110
Telephone (805) 681-3100
Telefax (805) 681-3108

GROUNDWATER MONITORING WELL
FIELD DATA LOG SHEET - PURGING

DATE 3/9/06 SITE NUMBER 24

PROGRAM NAME 36MP TRIP BLANK I.D. V24TB1214

MONITORING WELL IDENTIFICATION 24-MW-15A

SAMPLE I.D. V24MW15A DUPLICATE I.D. / COLLECTION TIME —/—

STATIC WATER LEVEL (ft btoc) 36.56 TOTAL WELL DEPTH (ft btoc) 39.2

WATER COLUMN (feet) 2.64 CASING DIAMETER (in) 2

WELL VOLUME (V) (gals) 0.44 3 V (gals) 1.33 BAILER BOX # 205

PURGING DEVICE 2" SUBMERSIBLE GRUNDFOS PUMP

SAMPLING DEVICE DISPOSABLE TEFLON BAILER

PID READING IN CASING (ppm) (initial) 0.0 (vented to) 0.0

PID READING IN BREATHING ZONE (ppm) (initial) 0.0 (vented to) 0.0

SAMPLER'S SIGNATURE Brett Grove

Time	Activity	Water Level (ft btoc)	Pump Depth (ft btoc)	Temp (Deg. C)	EC (µmhos/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (gals)	Well Volumes Purged	Flow Rate (GPM)
0856	Arrived at well	—	—	—	—	—	—	—	—	—	—	—	—
0913	Begin Purge	—	39	—	—	—	—	—	—	—	—	—	0.5
0914	Well Purged dry Prior to any readings									—			
1345	Sample	36.64	—	20.35	1587	6.31	151	3.44	200.2	—			
1400	Vacated well	—	—	—	—	—	—	—	—	—	—	—	—

Fe+2 (ppm) — Taken from first bailer immediately before sampling.

WATER LEVEL (ft btoc) AT TIME OF SAMPLING: 36.64 FILTER LOT # A1041905Y

Comments:

PARAMETERS FOR WATER QUALITY STABILIZATION

Temperature ±1 C (1.8 F)	Conductivity ± 5%
pH ± 0.1	Turbidity 5 NTUs

Note: All water levels and pump depths are measured from the notch in the top of the well casing. If volatiles are detected above background in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities.

Form number Tt-O-050 (9/05)

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Telephone (805) 681-3100
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GROUNDWATER MONITORING WELL FIELD DATA LOG SHEET - PURGING

DATE 3/10/06 SITE NUMBER 24
PROGRAM NAME BGMP TRIP BLANK I.D. V24TB1215
MONITORING WELL IDENTIFICATION 24-MW-15B
SAMPLE I.D. V24MW15B DUPLICATE I.D. / COLLECTION TIME – / –
STATIC WATER LEVEL (ft btoc) 36.92 TOTAL WELL DEPTH (ft btoc) 69.9
WATER COLUMN (feet) 33.0 TUBING DIAMETER (in) 1/4
PUMP & TUBING (V) (L) 0.29 5 V (L) 1.45

PURGING DEVICE MICROPURGE DEDICATED PUMP
SAMPLING DEVICE MICROPURGE DEDICATED PUMP
PID READING IN CASING (ppm) (initial) 0.0 (vented to) 0.0
PID READING IN BREATHING ZONE (ppm) (initial) 0.0 (vented to) 0.0
SAMPLER'S SIGNATURE [signature]

Time	Activity	Water Level (ft btoc)	Temp (Deg. C)	EC (μmhos/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (L)	Pump & Tubing Volumes Purged	Flow Rate (LPM)
1035	Arrived at well	—	—	—	—	—	—	—	—	—	—	—
1051	Begin Purge	—	—	—	—	—	—	—	—	—	—	0.23
1053		37.09	19.04	2257	5.69	12.4	3.58	123.9	clear	0.46	1.59	↓
1055		37.11	19.59	2224	5.74	5.73	3.79	143.6	clear	0.92	3.17	↓
1057		37.14	19.83	2240	5.72	4.50	3.94	160.9	clear	1.38	4.76	↓
1059		37.17	19.83	2242	5.71	3.64	3.96	175.6	clear	1.84	6.34	↓
1100	End Purge											
1105	Sample											
1120	Vacated well	—	—	—	—	—	—	—	—	—	—	—

Fe+2 (ppm) — Taken immediately before sampling.
WATER LEVEL (ft btoc) AT TIME OF SAMPLING: 37.17 FILTER LOT # A10532744
Comments:

PARAMETERS FOR WATER QUALITY STABILIZATION
Temperature ±1 C (1.8 F) Conductivity ±5%
pH ±0.1 Turbidity 5 NTUs

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Note: All water levels and pump depths are measured from the notch in the top of the well casing. If volatiles are detected above background in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities.

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GROUNDWATER MONITORING WELL
FIELD DATA LOG SHEET - PURGING

DATE 3/9/06 SITE NUMBER 24

PROGRAM NAME BGMP TRIP BLANK I.D. V24TB1214

MONITORING WELL IDENTIFICATION 24-MW-16B

SAMPLE I.D. V24MW16B DUPLICATE I.D. / COLLECTION TIME —/—

STATIC WATER LEVEL (ft btoc) 38.79 TOTAL WELL DEPTH (ft btoc) 75.5

WATER COLUMN (feet) 36.7 CASING DIAMETER (in) 4

WELL VOLUME (V) (gals) 23.9 3 V (gals) 71.7 BAILER BOX # 205

PURGING DEVICE 2" SUBMERSIBLE GRUNDFOS PUMP

SAMPLING DEVICE DISPOSABLE TEFLON BAILER

PID READING IN CASING (ppm) (initial) 0.4 (vented to) 0.0

PID READING IN BREATHING ZONE (ppm) (initial) 0.0 (vented to) 0.0

SAMPLER'S SIGNATURE Brent Gore

Time	Activity	Water Level (ft btoc)	Pump Depth (ft btoc)	Temp (Deg. C)	EC (µmhos/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (gals)	Well Volumes Purged	Flow Rate (GPM)
1145	Arrived at well	—	—	—	—	—	—	—	—	—	—	—	—
1155	Begin Purge	—	75	—	—	—	—	—	—	—	—	—	3.0
1200	↓	43.89	↓	21.50	959	6.64	9.43	8.03	201.6	clear	15.0	0.62	
1205	↓	43.88	↓	21.59	958	6.05	5.80	8.29	175.3	clear	30.0	1.25	
1206	Raise Pump		65								~~45.0~~	~~1.88~~	
1210	↓	44.02	↓	21.63	939	6.03	4.71	9.13	168.1	clear	45.0	1.88	
1215	↓	44.14	↓	21.55	947	5.97	3.67	8.52	171.4	clear	60.0	2.51	
1216	Raise Pump		55										
1220	↓	44.44	↓	21.52	881	6.41	2.12	6.46	155.2	clear	75.0	3.13	
1225	↓	44.25	↓	21.62	950	5.99	3.03	8.76	169.2	clear	90.0	3.76	
1230	↓	44.39	↓	21.49	950	5.96	2.05	9.87	174.2	clear	105.0	4.39	
1235	End Pump	44.45	↓	21.58	953	5.94	1.76	9.07	177.2	clear	120.0	5.02	
1245	Sample	39.20	↓	20.10	831	6.64	5.51	7.34	291.9	clear	—	—	↓
1300	Vacated well	—	—	—	—	—	—	—	—	—	—	—	—

Fe+2 (ppm) — Taken from first bailer immediately before sampling.

WATER LEVEL (ft btoc) AT TIME OF SAMPLING: 39.20 FILTER LOT # A10419059

Comments:

PARAMETERS FOR WATER QUALITY STABILIZATION

Temperature ±1 C (1.8 F)	Conductivity ±5%
pH ±0.1	Turbidity 5 NTUs

Note: All water levels and pump depths are measured from the notch in the top of the well casing. If volatiles are detected above background in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities.

Form number Tt-O-050 (9/05)

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TETRA TECH, INC.
4213 State Street, STE 100
Santa Barbara, CA 93110
Telephone (805) 681-3100
Telefax (805) 681-3108

GROUNDWATER MONITORING WELL FIELD DATA LOG SHEET - PURGING

DATE 03/10/06 SITE NUMBER 24

PROGRAM NAME BGMP TRIP BLANK I.D. V24TB1215

MONITORING WELL IDENTIFICATION 24-MW-17B

SAMPLE I.D. V24MW17B DUPLICATE I.D. / COLLECTION TIME —/—

STATIC WATER LEVEL (ft btoc) 37.97 TOTAL WELL DEPTH (ft btoc) 82.7

WATER COLUMN (feet) 44.7 TUBING DIAMETER (in) 1/4

PUMP & TUBING (V) (L) 0.36 5 V (L) 1.8

PURGING DEVICE MICROPURGE DEDICATED PUMP

SAMPLING DEVICE MICROPURGE DEDICATED PUMP

PID READING IN CASING (ppm) (initial) 3.2 (vented to) 1.0

PID READING IN BREATHING ZONE (ppm) (initial) 0.0 (vented to) 0.0

SAMPLER'S SIGNATURE [signature]

Time	Activity	Water Level (ft btoc)	Temp (Deg. C)	EC (µmhos/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (L)	Pump & Tubing Volumes Purged	Flow Rate (LPM)
0930	Arrived at well	—	—	—	—	—	—	—	—	—	—	—
0950	Begin Purge	—	—	—	—	—	—	—	—	—	—	0.24
0952		38.01	17.82	1158	5.81	30.1	5.56	184.3	clear	0.48	1.33	↓
0954		38.03	18.14	1168	5.79	5.75	5.48	185.6	Clear	0.96	2.67	↓
0956		38.03	18.24	1173	5.79	1.59	5.50	187.1	Clear	1.44	4.00	↓
0957	END PURGE											
1000	SAMPLE											
1012	Vacated well	—	—	—	—	—	—	—	—	—	—	—

Fe+2 (ppm) — Taken immediately before sampling.

WATER LEVEL (ft btoc) AT TIME OF SAMPLING: 38.02 FILTER LOT # A104/9059

Comments: water drove back about 40 ml ~~after~~ every squart into the purge tube (water goes back and force during each squart)

PARAMETERS FOR WATER QUALITY STABILIZATION
Temperature ±1 C (1.8 F) Conductivity ±5%
pH ±0.1 Turbidity 5 NTUs

Note: All water levels and pump depths are measured from the notch in the top of the well casing. If volatiles are detected above background in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities.

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GROUNDWATER MONITORING WELL
FIELD DATA LOG SHEET - PURGING

DATE 3/6/06 SITE NUMBER 24 PURGING DEVICE 2" SUBMERSIBLE GRUNDFOS PUMP

PROGRAM NAME BKMP TRIP BLANK I.D. V24TB1214 SAMPLING DEVICE DISPOSABLE TEFLON BAILER

MONITORING WELL IDENTIFICATION 24-PMW-18 PID READING IN CASINC (ppm) (initial) 863 (vented to) 105

SAMPLE I.D. V24PMW18 DUPLICATE I.D. / COLLECTION TIME — / — PID READING IN BREATHING ZONE (ppm) (initial) 0.0 (vented to) 0.0

STATIC WATER LEVEL (ft btoc) 10.92 TOTAL WELL DEPTH (ft btoc) 25.3

WATER COLUMN (feet) 14.4 CASING DIAMETER (in) 4 SAMPLER'S SIGNATURE Mark Hall / Pete Old

WELL VOLUME (V) (gals) 9.4 3 V (gals) 28.2 BAILER BOX # 207

Time	Activity	Water Level (ft btoc)	Pump Depth (ft btoc)	Temp (Deg. C)	EC (µmhos/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (gals)	Well Volumes Purged	Flow Rate (GPM)
1230	Arrived at well	—	—	—	—	—	—	—	—	—	—	—	—
1244	Begin Purge	—	34.5	—	—	—	—	—	—	—	—	—	0.5
1249		13.81	↑	16.68	518	7.19	35.7	6.73	21.4	Cloudy	2.5	0.27	↑
1254		16.14		16.97	520	7.12	35.4	6.37	-8.7	Cloudy	5.0	0.53	
1259		17.77		16.68	512	7.00	34.6	6.32	-11.7	Cloudy	7.5	0.80	
1304		19.23		17.04	511	7.03	61.0	6.18	-16.2	Cloudy	10.0	1.06	
1309		20.65		17.15	537	6.94	64.0	6.43	-15.5	Cloudy	12.5	1.33	
1314		22.64		16.64	539	6.96	63.4	7.30	-16.1	Cloudy	15.0	1.60	
1319		24.62	↓	17.58	560	6.93	—	6.42	-16.7	Cloudy	17.5	1.80	↓
1320	End Purge; well purged dry.												
1450	Sample	22.38	—	17.12	636	7.12	+200	7.03	-40.0	Cloudy	—	—	—
1510	Vacated well	—	—	—	—	—	—	—	—	—	—	—	—

Fe+2 (ppm) — Taken from first bailer immediately before sampling.

WATER LEVEL (ft btoc) AT TIME OF SAMPLING: 22.38 FILTER LOT # A1041905A

Comments: Turbidity on last reading was not taken due to well purging dry.

PARAMETERS FOR WATER QUALITY STABILIZATION

Temperature ±1 C (1.8 F)	Conductivity ± 5%
pH ± 0.1	Turbidity 5 NTUs

Note: All water levels and pump depths are measured from the notch in the top of the well casing. If volatiles are detected above background in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities.

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GROUNDWATER MONITORING WELL
FIELD DATA LOG SHEET - PURGING

DATE 03/10/06 SITE NUMBER 24

PROGRAM NAME BGMP TRIP BLANK I.D. V24TB 1215

MONITORING WELL IDENTIFICATION 24-PMW-19

SAMPLE I.D. V24PMW19 DUPLICATE I.D. / COLLECTION TIME —/—

STATIC WATER LEVEL (ft btoc) 5.57 TOTAL WELL DEPTH (ft btoc) 25.1

WATER COLUMN (feet) 19.53 TUBING DIAMETER (in) 1/4

PUMP & TUBING (V) (L) 0.22 5 V (L) 1.1

PURGING DEVICE MICROPURGE DEDICATED PUMP

SAMPLING DEVICE MICROPURGE DEDICATED PUMP

PID READING IN CASING (ppm) (initial) 0.0 (vented to) 0.0

PID READING IN BREATHING ZONE (ppm) (initial) 0.0 (vented to) 0.0

SAMPLER'S SIGNATURE Jagbok Chi

Time	Activity	Water Level (ft btoc)	Temp (Deg. C)	EC (µmhos/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (L)	Pump & Tubing Volumes Purged	Flow Rate (LPM)
1330	Arrived at well											
1337	Begin Purge											0.18
1340		6.78	17.06	1251	6.80	27.6	4.15	-32.5	clear	0.54	2.45	↓
1343		7.41	17.11	1202	6.93	31.7	5.02	-23.8	cloudy	1.08	4.90	
1346		7.91	17.17	1138	6.99	30.2	5.50	~~-15.4~~ -15.7	cloudy	1.62	7.36	
1347	END PURGE											
1350	SAMPLE											
1400	Vacated well											

Fe+2 (ppm) — Taken immediately before sampling.

WATER LEVEL (ft btoc) AT TIME OF SAMPLING: 8.23 FILTER LOT # A1041905 9

Comments:

PARAMETERS FOR WATER QUALITY STABILIZATION

Temperature ±1 C (1.8 F)	Conductivity ± 5%
pH ± 0.1	Turbidity 5 NTUs

Note: All water levels and pump depths are measured from the notch in the top of the well casing. If volatiles are detected above background in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities.

Form number Tt-O-049 (9/05)

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4213 State Street, STE 100
Santa Barbara, CA 93110
Telephone (805) 681-3100
Telefax (805) 681-3108

GROUNDWATER MONITORING WELL
FIELD DATA LOG SHEET - PURGING

DATE 03/10/06 SITE NUMBER 24

PROGRAM NAME BGMP TRIP BLANK I.D. V24TB1215

MONITORING WELL IDENTIFICATION 24MW-19B

SAMPLE I.D. V24MW19B DUPLICATE I.D. / COLLECTION TIME V99W634/1700

STATIC WATER LEVEL (ft btoc) 66.28 TOTAL WELL DEPTH (ft btoc) 70.8

WATER COLUMN (feet) 4.5 TUBING DIAMETER (in) 1/4

PUMP & TUBING (V) (L) 0.16 5 V (L) 0.80

PURGING DEVICE MICROPURGE DEDICATED PUMP

SAMPLING DEVICE MICROPURGE DEDICATED PUMP

PID READING IN CASING (ppm) (initial) 0.4 (vented to) 0.0

PID READING IN BREATHING ZONE (ppm) (initial) 0.0 (vented to) 0.0

SAMPLER'S SIGNATURE

Time	Activity	Water Level (ft btoc)	Temp (Deg. C)	EC (µmhos/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (L)	Pump & Tubing Volumes Purged	Flow Rate (LPM)
1230	Arrived at well											
1238	Begin Purge											0.12
1240		66.28	16.51	1503	6.07	9.49	2.29	99.2	clear	0.24	1.50	
1242		66.28	17.22	1496	6.18	7.05	1.37	43.1	clear	0.48	3.00	
1244		66.28	17.79	1500	6.31	3.86	0.79	2.9	clear	0.72	4.50	
1246		66.28	18.20	1507	6.35	2.75	0.55	-20.6	clear	0.96	6.00	
1247	END PURGE											
1250	SAMPLE											
1330	Vacated well											

Fe+2 (ppm) — Taken immediately before sampling.

WATER LEVEL (ft btoc) AT TIME OF SAMPLING: 66.28 FILTER LOT # A1061905

Comments:

PARAMETERS FOR WATER QUALITY STABILIZATION

Temperature ±1 C (1.8 F)	Conductivity ± 5%
pH ± 0.1	Turbidity 5 NTUs

Note: All water levels and pump depths are measured from the notch in the top of the well casing. If volatiles are detected above background in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities.

Form number Tt-O-049 (9/05)

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4213 State Street, STE 100
Santa Barbara, CA 93110
Telephone (805) 681-3100
Telefax (805) 681-3108

GROUNDWATER MONITORING WELL FIELD DATA LOG SHEET - PURGING

DATE 3/9/06 SITE NUMBER 24

PROGRAM NAME BGMP TRIP BLANK I.D. V24TB1214

MONITORING WELL IDENTIFICATION 24-MW-208

SAMPLE I.D. V24MW208 DUPLICATE I.D. / COLLECTION TIME — / —

STATIC WATER LEVEL (ft btoc) 65.29 TOTAL WELL DEPTH (ft btoc) 67.0

WATER COLUMN (feet) 1.7 CASING DIAMETER (in) 4

WELL VOLUME (V) (gals) 1.1 3 V (gals) 3.3 BAILER BOX # 305

PURGING DEVICE 2" SUBMERSIBLE GRUNDFOS PUMP

SAMPLING DEVICE DISPOSABLE TEFLON BAILER

PID READING IN CASING (ppm) (initial) 0.8 (vented to) 0.0

PID READING IN BREATHING ZONE (ppm) (initial) 0.0 (vented to) 0.0

SAMPLER'S SIGNATURE [signatures]

Time	Activity	Water Level (ft btoc)	Pump Depth (ft btoc)	Temp (Deg. C)	EC (µmhos/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (gals)	Well Volumes Purged	Flow Rate (GPM)
1205	Arrived at well	—	—	—	—	—	—	—	—	—	—	—	—
1219	Begin Purge	—	66	—	—	—	—	—	—	—	—	—	0.5
1221	End Purge; well purged dry.											[illegible]	0.5
1425	Sample	65.86											
1440	Vacated well	—	—	—	—	—	—	—	—	—	—	—	—

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Fe+2 (ppm) — Taken from first bailer immediately before sampling.

WATER LEVEL (ft btoc) AT TIME OF SAMPLING: 65.86 FILTER LOT # A10532744

Comments: No parameters recorded at time of sampling due to limited water column.

PARAMETERS FOR WATER QUALITY STABILIZATION
Temperature ±1 C (1.8 F) Conductivity ±5%
pH ±0.1 Turbidity 5 NTUs

Note: All water levels and pump depths are measured from the notch in the top of the well casing. If volatiles are detected above background in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities.

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GROUNDWATER MONITORING WELL
FIELD DATA LOG SHEET - PURGING

DATE 3/9/06 SITE NUMBER 24 PURGING DEVICE 2" SUBMERSIBLE GRUNDFOS PUMP

PROGRAM NAME BGMP TRIP BLANK I.D. V24TO1314 SAMPLING DEVICE DISPOSABLE TEFLON BAILER

MONITORING WELL IDENTIFICATION 24-PMW-21 PID READING IN CASINC (ppm) (initial) 1.4 (vented to) 0.4

SAMPLE I.D. V24PMW21 DUPLICATE I.D. / COLLECTION TIME -1- PID READING IN BREATHING ZONE (ppm) (initial) 0.0 (vented to) 0.0

STATIC WATER LEVEL (ft btoc) 9.91 TOTAL WELL DEPTH (ft btoc) 27.4

WATER COLUMN (feet) 17.5 CASING DIAMETER (in) 2 SAMPLER'S SIGNATURE Mark Hall / Pete Oldfield

WELL VOLUME (V) (gals) 2.9 3 V (gals) 8.7 BAILER BOX # 305

Time	Activity	Water Level (ft btoc)	Pump Depth (ft btoc)	Temp (Deg. C)	EC (µmhos/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (gals)	Well Volumes Purged	Flow Rate (GPM)
1030	Arrived at well	—	—	—	—	—	—	—	—	—	—	—	—
1046	Begin Purge	—	26.5	—	—	—	—	—	—	—	—	—	0.5
1054		17.63	~~17.63~~	16.45	933	6.35	11.7	7.79	19.3	Clear	2.5	0.86	
1059		17.98	26.5	17.29	967	6.34	6.53	7.37	11.0	Clear	5.6	1.72	
1104		20.58	↓	17.61	939	6.34	5.67	6.66	3.4	Clear	7.5	2.59	
1109		+++	↓	17.68	940	6.28	13.9	5.72	5.2	Clear	10.0	3.45	↓
1113	End purge: well purged dry												
1340	Sample	22.81	—	17.64	1002	6.71	39.0	7.86	-12.8	Cloudy			
1350	Vacated well	—	—	—	—	—	—	—	—	—	—	—	—

Fe+2 (ppm) — Taken from first bailer immediately before sampling.

WATER LEVEL (ft btoc) AT TIME OF SAMPLING: 22.81 FILTER LOT # A10532744

Comments: +++ Water level water washed to drop post check valve

PARAMETERS FOR WATER QUALITY STABILIZATION

Temperature ±1 C (1.8 F)	Conductivity ± 5%
pH ± 0.1	Turbidity 5 NTUs

Note: All water levels and pump depths are measured from the notch in the top of the well casing. If volatiles are detected above background in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities.

Form number Tt-O-050 (9/05)

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GROUNDWATER MONITORING WELL
FIELD DATA LOG SHEET - PURGING

DATE 3/9/06 SITE NUMBER 24 PURGING DEVICE 2" SUBMERSIBLE GRUNDFOS PUMP

PROGRAM NAME BKM P TRIP BLANK I.D. V24TBW14 SAMPLING DEVICE DISPOSABLE TEFLON BAILER

MONITORING WELL IDENTIFICATION 24-MW-21B PID READING IN CASING (ppm) (initial) 0.3 (vented to) 0.0

SAMPLE I.D. V24MW21B DUPLICATE I.D. / COLLECTION TIME -/- PID READING IN BREATHING ZONE (ppm) (initial) 0.0 (vented to) 0.0

STATIC WATER LEVEL (ft btoc) 66.58 TOTAL WELL DEPTH (ft btoc) 69.5

WATER COLUMN (feet) 2.9 CASING DIAMETER (in) 4 SAMPLER'S SIGNATURE Mike Hahn / Pete Oblad

WELL VOLUME (V) (gals) 1.9 3 V (gals) 5.7 BAILER BOX # 205

Time	Activity	Water Level (ft btoc)	Pump Depth (ft btoc)	Temp (Deg. C)	EC (µmhos/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (gals)	Well Volumes Purged	Flow Rate (GPM)
1130	Arrived at well	—	—	—	—	—	—	—	—	—	—	—	—
1133	Begin Purge	—	69	—	—	—	—	—	—	—	—	—	0.5
1135		67.43	↓	13.28	335	6.50	58.3	11.30	151.7	Cloudy	0.5 1.0	0.53	
1137		67.76		14.64	761	6.34	46.5	3.14	-149.0	Cloudy	2.0	1.05	
1139		67.85		17.26	933	6.82	24.7	0.96	-163.2	Cloudy	3.0	1.58	
1141		68.70	↓	17.83	1014	6.45	11.4	0.77	-150.1	Clear	4.0	2.11	↓
1142	End Purge; well purged dry.												
1400	Sample	66.36	—	17.78	1184	6.52	12.0	2.22	-48.7	Clear	—	—	—
1415	Vacated well	—	—	—	—	—	—	—	—	—	—	—	—

Fe+2 (ppm) — Taken from first bailer immediately before sampling.

WATER LEVEL (ft btoc) AT TIME OF SAMPLING: 66.36 FILTER LOT # A105337744

Comments:

PARAMETERS FOR WATER QUALITY STABILIZATION

Temperature ±1 C (1.8 F)	Conductivity ±5%
pH ±0.1	Turbidity 5 NTUs

Note: All water levels and pump depths are measured from the notch in the top of the well casing. If volatiles are detected above background in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities.

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GROUNDWATER MONITORING WELL
FIELD DATA LOG SHEET - PURGING

DATE 3/7/06 SITE NUMBER 24 PURGING DEVICE 2" SUBMERSIBLE GRUNDFOS PUMP

PROGRAM NAME BGMP TRIP BLANK I.D. VJMTB1311 SAMPLING DEVICE DISPOSABLE TEFLON BAILER

MONITORING WELL IDENTIFICATION 24-PMW-22 PID READING IN CASING (ppm) (initial) 255 (vented to) 8.3

SAMPLE I.D. V24PMW22 DUPLICATE I.D. / COLLECTION TIME — / — PID READING IN BREATHING ZONE (ppm) (initial) 0.0 (vented to) 0.0

STATIC WATER LEVEL (ft btoc) 14.31 TOTAL WELL DEPTH (ft btoc) 27.5

WATER COLUMN (feet) 13.2 CASING DIAMETER (in) 2 SAMPLER'S SIGNATURE

WELL VOLUME (V) (gals) 2.2 3 V (gals) 6.6 BAILER BOX # 204

Time	Activity	Water Level (ft btoc)	Pump Depth (ft btoc)	Temp (Deg. C)	EC (µmhos/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (gals)	Well Volumes Purged	Flow Rate (GPM)
1315	Arrived at well	—	—	—	—	—	—	—	—	—	—	—	—
1318	Begin Purge	—	26.5	—	—	—	—	—	—	—	—	—	0.5
1320		17.06	↓	15.06	360	7.08	40.2	10.14	-0.3	Cloudy	1.0	0.45	↓
1322		17.84		15.10	359	7.09	9.96	10.58	-2.2	Clear	2.0	0.91	
1325		18.52		15.10	413	6.96	7.63	12.55	8.0	Clear	3.5	1.59	
1328		21.10		16.85	815	6.93	14.3	9.74	0.3	Clear	5.0	2.27	
1331		23.30		17.82	866	7.00	10.8	7.78	-8.5	Clear	6.5	2.95	
1334		25.17	↓	18.07	876	6.99	11.4	7.03	-9.1	Clear	8.0	3.64	↓
1335	Well purged DRY ; end purge.												
1345	Sample	25.14	—	18.50	849	7.14	73.0	7.64	2.6	Cloudy			
1350	Vacated well	—	—	—	—	—	—	—	—	—	—	—	—

Fe+2 (ppm) — Taken from first bailer immediately before sampling.

WATER LEVEL (ft btoc) AT TIME OF SAMPLING: 25.14 FILTER LOT # A104 14059

Comments:

PARAMETERS FOR WATER QUALITY STABILIZATION

Temperature ±1 C (1.8 F)	Conductivity ± 5%
pH ± 0.1	Turbidity 5 NTUs

Note: All water levels and pump depths are measured from the notch in the top of the well casing. If volatiles are detected above background in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities.

Form number Tt-O-050 (9/05)

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GROUNDWATER MONITORING WELL
FIELD DATA LOG SHEET - PURGING

DATE 3/7/06 SITE NUMBER 24 PURGING DEVICE MICROPURGE DEDICATED PUMP

PROGRAM NAME BGMP TRIP BLANK I.D. V24TB1211 SAMPLING DEVICE MICROPURGE DEDICATED PUMP

MONITORING WELL IDENTIFICATION 24-MW-22A PID READING IN CASING (ppm) (initial) 0.0 (vented to) 0.0

SAMPLE I.D. V24MW22A DUPLICATE I.D. / COLLECTION TIME —/— PID READING IN BREATHING ZONE (ppm) (initial) 0.0 (vented to) 0.0

STATIC WATER LEVEL (ft btoc) 21.92 TOTAL WELL DEPTH (ft btoc) 45.8

WATER COLUMN (feet) 23.9 TUBING DIAMETER (in) 1/4 SAMPLER'S SIGNATURE

PUMP & TUBING (V) (L) (5.3) 40 +100 = 0.31 5 V (L) 1.56

Time	Activity	Water Level (ft btoc)	Temp (Deg. C)	EC (µmhos/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (L)	Pump & Tubing Volumes Purged	Flow Rate (LPM)
1614	Arrived at well	—	—	—	—	—	—	—	—	—	—	—
1624	Begin Purge	—	—	—	—	—	—	—	—	—	—	0.20
1626	|	22.57	16.25	1192	6.09	6.99	6.46	4.2	Clear	0.40	1.29	|
1628	|	22.72	16.46	1193	6.11	7.92	6.14	2.0	Clear	0.80	2.58	|
1630	|	22.94	16.63	1193	6.11	10.4	5.95	0.2	Clear	1.20	3.87	|
1632	|	23.03	16.73	1193	6.11	9.88	5.86	-0.7	Clear	1.60	5.16	|
1633	End Purge	—	—	—	—	—	—	—	—	—	—	—
1635	Sample	—	—	—	—	—	—	—	—	—	—	—
1710	Vacated well	—	—	—	—	—	—	—	—	—	—	—

Fe+2 (ppm) — Taken immediately before sampling.

WATER LEVEL (ft btoc) AT TIME OF SAMPLING: 23.24 FILTER LOT # A103 14700

Comments:

PARAMETERS FOR WATER QUALITY STABILIZATION

Temperature ±1 C (1.8 F)	Conductivity ± 5%
pH ± 0.1	Turbidity 5 NTUs

Note: All water levels and pump depths are measured from the notch in the top of the well casing. If volatiles are detected above background in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities.

TETRA TECH, INC.
4213 State Street, STE 100
Santa Barbara, CA 93110
Telephone (805) 681-3100
Telefax (805) 681-3108

GROUNDWATER MONITORING WELL
FIELD DATA LOG SHEET - PURGING

DATE 3/7/06 SITE NUMBER 24 PURGING DEVICE 2" SUBMERSIBLE GRUNDFOS PUMP

PROGRAM NAME BGMP TRIP BLANK I.D. V24TB1211 SAMPLING DEVICE DISPOSABLE TEFLON BAILER

MONITORING WELL IDENTIFICATION 24-MW-22B PID READING IN CASING (ppm) (initial) 0.8 (vented to) 0.0

SAMPLE I.D. V24MW22B DUPLICATE I.D. / COLLECTION TIME - / - PID READING IN BREATHING ZONE (ppm) (initial) 0.0 (vented to) 0.0

STATIC WATER LEVEL (ft btoc) 65.70 TOTAL WELL DEPTH (ft btoc) 69.2

WATER COLUMN (feet) 3.5 CASING DIAMETER (in) 4 SAMPLER'S SIGNATURE

WELL VOLUME (V) (gals) 2.24 (3) 3 V (gals) 6.87 BAILER BOX # 205

Time	Activity	Water Level (ft btoc)	Pump Depth (ft btoc)	Temp (Deg. C)	EC (µmhos/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (gals)	Well Volumes Purged	Flow Rate (GPM)
0945	Arrived at well	—	—	—	—	—	—	—	—	—	—	—	—
0959	Begin Purge	—	68	—	—	—	—	—	—	—	—	—	0.5
1001		67.10	|	12.55	320	5.70	+200	9.61	10.1	Cloudy	1.0	0.43	|
1003		67.41	|	14.12	601	5.74	+200	9.06	5.4	Cloudy	2.0	0.87	|
1005		67.79	|	13.86	651	5.88	+200	8.40	3.0	Cloudy	3.0	1.30	|
1007		68.15	↓	13.81	657	6.00	133	7.74	1.0	Cloudy	4.0	1.74	↓
1008	End Purge;	WELL	DRY	—	—	—	—	—	—	—	—	—	—
1020	Sample	66.80	—	18.66	1271	6.22	+200	2.14	-14.7	Cloudy	—	—	—
1030	Vacated well	—	—	—	—	—	—	—	—	—	—	—	—

Fe+2 (ppm) — Taken from first bailer immediately before sampling.

WATER LEVEL (ft btoc) AT TIME OF SAMPLING: 66.80 FILTER LOT # A1041905 9

Comments:

PARAMETERS FOR WATER QUALITY STABILIZATION

Temperature ±1 C (1.8 F)	Conductivity ± 5%
pH ± 0.1	Turbidity 5 NTUs

Note: All water levels and pump depths are measured from the notch in the top of the well casing. If volatiles are detected above background in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities.

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GROUNDWATER MONITORING WELL
FIELD DATA LOG SHEET - PURGING

DATE 03/10/06 SITE NUMBER 24

PROGRAM NAME BGMP TRIP BLANK I.D. V24TB1215

MONITORING WELL IDENTIFICATION 24-MW-23B

SAMPLE I.D. V24MW23B DUPLICATE I.D. / COLLECTION TIME — / —

STATIC WATER LEVEL (ft btoc) 37.46 TOTAL WELL DEPTH (ft btoc) 77.9

WATER COLUMN (feet) 40.4 TUBING DIAMETER (in) 1/4

PUMP & TUBING (V) (L) 0.33 5 V (L) 1.65

PURGING DEVICE MICROPURGE DEDICATED PUMP

SAMPLING DEVICE MICROPURGE DEDICATED PUMP

PID READING IN CASING (ppm) (initial) 9.8 (vented to) 1.4

PID READING IN BREATHING ZONE (ppm) (initial) 0.0 (vented to) 0.0

SAMPLER'S SIGNATURE Tonya Clin

Time	Activity	Water Level (ft btoc)	Temp (Deg. C)	EC (µmhos/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (L)	Pump & Tubing Volumes Purged	Flow Rate (LPM)
1038	Arrived at well											
1047	Begin Purge											0.24
1049		37.49	17.59	920	6.04	2.12	6.12	172.0	clear	0.48	1.45	↓
1051		37.51	17.61	895	6.03	2.09	5.92	173.2	clear	0.96	2.90	
1053		37.51	17.50	868	6.04	1.98	5.84	173.7	clear	1.44	4.36	
1055		37.51	17.42	858	6.02	2.08	5.69	174.7	clear	1.92	5.82	↓
1056	END PURGE											
1100	SAMPLE											
1112	Vacated well											

Fe+2 (ppm) — Taken immediately before sampling.

WATER LEVEL (ft btoc) AT TIME OF SAMPLING: 37.51 FILTER LOT # A 104190 59

Comments:

PARAMETERS FOR WATER QUALITY STABILIZATION
Temperature ±1 C (1.8 F) Conductivity ±5%
pH ±0.1 Turbidity 5 NTUs

Note: All water levels and pump depths are measured from the notch in the top of the well casing. If volatiles are detected above background in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities.

Form number Tt-O-049 (9/05)

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TETRA TECH, INC.
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Santa Barbara, CA 93110
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GROUNDWATER MONITORING WELL
FIELD DATA LOG SHEET - PURGING

DATE 03/10/06 SITE NUMBER 24

PROGRAM NAME BGMP TRIP BLANK I.D. V24TB1215

MONITORING WELL IDENTIFICATION 24-MW-24B

SAMPLE I.D. V24MW24B DUPLICATE I.D. / COLLECTION TIME -/-

STATIC WATER LEVEL (ft btoc) 35.10 TOTAL WELL DEPTH (ft btoc) 77.1

WATER COLUMN (feet) 42.0 TUBING DIAMETER (in) 1/4

PUMP & TUBING (V) (L) 0.34 5 V (L) 1.7

PURGING DEVICE MICROPURGE DEDICATED PUMP

SAMPLING DEVICE MICROPURGE DEDICATED PUMP

PID READING IN CASING (ppm) (initial) 0.0 (vented to) 0.0

PID READING IN BREATHING ZONE (ppm) (initial) 0.0 (vented to) 0.0

SAMPLER'S SIGNATURE

Time	Activity	Water Level (ft btoc)	Temp (Deg. C)	EC (µmhos/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (L)	Pump & Tubing Volumes Purged	Flow Rate (LPM)
1119	Arrived at well											
1123	Begin Purge											0.24
1125		35.13	17.28	1779	5.91	3.39	6.86	188.0	clear	0.48	1.41	
1127		35.14	17.84	2070	5.79	2.18	6.44	192.8	clear	0.96	2.82	
1129		35.14	18.10	2167	5.76	1.44	6.43	192.5	clear	1.44	4.23	
1131		35.14	17.74	2212	5.75	1.21	6.30	193.9	clear	1.92	5.64	
1132	~~SAMP~~ @ END PURGE											
1135	SAMPLE											
1143	Vacated well											

Fe+2 (ppm) ~ Taken immediately before sampling.

WATER LEVEL (ft btoc) AT TIME OF SAMPLING: 35.14 FILTER LOT # A1041059

Comments:

PARAMETERS FOR WATER QUALITY STABILIZATION

Temperature ±1 C (1.8 F)	Conductivity ± 5%
pH ± 0.1	Turbidity 5 NTUs

Note: All water levels and pump depths are measured from the notch in the top of the well casing. If volatiles are detected above background in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities.

Form number Tt-O-049 (9/05)

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TETRA TECH, INC.
4213 State Street, STE 100
Santa Barbara, CA 93110
Telephone (805) 681-3100
Telefax (805) 681-3108

GROUNDWATER MONITORING WELL
FIELD DATA LOG SHEET - PURGING

DATE 03/10/06 SITE NUMBER 24

PROGRAM NAME BGMP TRIP BLANK I.D. V24TB1215

MONITORING WELL IDENTIFICATION 24-MW-25B

SAMPLE I.D. V24MW25B DUPLICATE I.D. / COLLECTION TIME -1-

STATIC WATER LEVEL (ft btoc) 23.51 TOTAL WELL DEPTH (ft btoc) 50.3

WATER COLUMN (feet) 26.8 TUBING DIAMETER (in) 1/4

PUMP & TUBING (V) (L) 0.35 5 V (L) 1.75

PURGING DEVICE MICROPURGE DEDICATED PUMP

SAMPLING DEVICE MICROPURGE DEDICATED PUMP

PID READING IN CASING (ppm) (initial) 0.0 (vented to) 0.0

PID READING IN BREATHING ZONE (ppm) (initial) 0.0 (vented to) 0.0

SAMPLER'S SIGNATURE Jessica Chi

Time	Activity	Water Level (ft btoc)	Temp (Deg. C)	EC (µmhos/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (L)	Pump & Tubing Volumes Purged	Flow Rate (LPM)
1200	Arrived at well	—	—	—	—	—	—	—	—	—	—	—
1206	Begin Purge	—	—	—	—	—	—	—	—	—	—	0.18
1208		23.58	16.36	1871	5.78	1.40	4.81	193.5	clear	0.36	1.03	↓
1210		23.58	16.10	1730	5.74	0.76	3.87	192.2	clear	0.72	2.06	
1212		23.58	15.95	1653	5.72	0.54	3.28	192.5	clear	1.08	3.09	
1214		23.58	15.86	1602	5.71	0.52	3.10	192.0	clear	1.44	4.11	
1216		23.58	15.86	1588	5.71	0.67	3.02	193.9	clear	1.80	5.14	↓
1217	END PURGE	—	—	—	—	—	—	—	—	—	—	—
1220	SAMPLE	—	—	—	—	—	—	—	—	—	—	—
1221	Vacated well	—	—	—	—	—	—	—	—	—	—	—

Fe+2 (ppm) — Taken immediately before sampling.

WATER LEVEL (ft btoc) AT TIME OF SAMPLING: 23.58 FILTER LOT # —

Comments:

PARAMETERS FOR WATER QUALITY STABILIZATION

Temperature ±1 C (1.8 F)	Conductivity ±5%
pH ±0.1	Turbidity 5 NTUs

Note: All water levels and pump depths are measured from the notch in the top of the well casing. If volatiles are detected above background in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities.

Form number Tt-O-049 (9/05)

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TETRA TECH, INC.
4213 State Street, STE 100
Santa Barbara, CA 93110
Telephone (805) 681-3100
Telefax (805) 681-3108

GROUNDWATER MONITORING WELL
FIELD DATA LOG SHEET - PURGING

DATE 13 March 2006 SITE NUMBER 24

PROGRAM NAME B6MP TRIP BLANK I.D. V24TB1217

MONITORING WELL IDENTIFICATION 24-PMW-26

SAMPLE I.D. V24PMW26 DUPLICATE I.D. / COLLECTION TIME —

STATIC WATER LEVEL (ft btoc) 10.77 TOTAL WELL DEPTH (ft btoc) 23.9

WATER COLUMN (feet) 13.13 CASING DIAMETER (in) 2

WELL VOLUME (V) (gals) 2.10 3 V (gals) 6.30 BAILER BOX # 206

PURGING DEVICE 2" SUBMERSIBLE GRUNDFOS PUMP

SAMPLING DEVICE DISPOSABLE TEFLON BAILER

PID READING IN CASING (ppm) (initial) 0.0 (vented to) 0.0

PID READING IN BREATHING ZONE (ppm) (initial) 0.0 (vented to) 0.0

SAMPLER'S SIGNATURE

Time	Activity	Water Level (ft btoc)	Pump Depth (ft btoc)	Temp (Deg. C)	EC (µmhos/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (gals)	Well Volumes Purged	Flow Rate (GPM)
1230	Arrived at well	—	—	—	—	—	—	—	—	—	—	—	—
1306	Begin Purge	—	23.5	—	—	—	—	—	—	—	—	—	0.5
1311	—	14.20	23.5	16.32	1519	6.59	31.0	18.03	204.5	slightly cloudy	2.5	1.19	0.5
1316	—	15.05	23.5	17.56	2137	6.56	9.82	13.25	179.6	clear	5.0	2.38	0.5
1321	—	17.36	23.5	17.80	2080	6.52	14.3	11.78	174.1	clear	7.5	3.57	0.5
1326	—	21.10	23.5	18.27	2264	6.56	14.3	13.08	171.5	clear	10.0	4.76	0.5
1329	WELL DRY/END Purge	—	—	—	—	—	—	—	—	—	—	—	—
1340	SAMPLE	21.32	—	17.95	2346	6.77	+200	11.11	203.2	cloudy	—	—	—
1345	Vacated well	—	—	—	—	—	—	—	—	—	—	—	—

Fe+2 (ppm) — Taken from first bailer immediately before sampling.

WATER LEVEL (ft btoc) AT TIME OF SAMPLING: 21.32 FILTER LOT # N/A

Comments:

PARAMETERS FOR WATER QUALITY STABILIZATION

Temperature ±1 C (1.8 F)	Conductivity ± 5%
pH ± 0.1	Turbidity 5 NTUs

Note: All water levels and pump depths are measured from the notch in the top of the well casing. If volatiles are detected above background in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities.

Form number Tt-O-050 (9/05)

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TETRA TECH, INC.
4213 State Street, STE 100
Santa Barbara, CA 93110
Telephone (805) 681-3100
Telefax (805) 681-3108

GROUNDWATER MONITORING WELL
FIELD DATA LOG SHEET - PURGING

DATE 13 MARCH 2006 SITE NUMBER 24

PROGRAM NAME BGMP TRIP BLANK I.D. V24TB1217

MONITORING WELL IDENTIFICATION 24-MW-26A

SAMPLE I.D. V24MW26A DUPLICATE I.D. / COLLECTION TIME —

STATIC WATER LEVEL (ft btoc) 10.94 TOTAL WELL DEPTH (ft btoc) 50.4

WATER COLUMN (feet) 39.46 CASING DIAMETER (in) 4

WELL VOLUME (V) (gals) 25.65 3 V (gals) 76.95 BAILER BOX # 206

PURGING DEVICE 2" SUBMERSIBLE GRUNDFOS PUMP

SAMPLING DEVICE DISPOSABLE TEFLON BAILER

PID READING IN CASING (ppm) (initial) 0.0 (vented to) 0.0

PID READING IN BREATHING ZONE (ppm) (initial) 0.0 (vented to) 0.0

SAMPLER'S SIGNATURE

Time	Activity	Water Level (ft btoc)	Pump Depth (ft btoc)	Temp (Deg. C)	EC (µmhos/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (gals)	Well Volumes Purged	Flow Rate (GPM)
0915	Arrived at well	—	—	—	—	—	—	—	—	—	—	—	—
0925	Begin Purge	—	50	—	—	—	—	—	—	—	—	—	1.0
0930	—	16.35	50	17.63	1270	6.21	23.8	14.25	158.6	slight cloud	5.0	0.20	1.0
0935	—	20.26	50	18.25	425	7.11	20.5	10.40	150.2	slight cloud	10.0	0.39	1.0
0937	RAISE PUMP 5'	—	45	—	—	—	—	—	—	—	—	—	1.0
0945	—	24.66	45	18.69	358	7.22	32.0	10.72	147.9	slight cloud	20.0	0.78	1.0
0950	—	28.04	45	18.64	391	7.08	30.4	10.85	128.1	slight cloud	25.0	0.98	1.0
0951	RAISE PUMP 5'	—	40	—	—	—	—	—	—	—	—	—	1.0
0955	—	30.75	40	18.42	392	7.17	24.8	11.73	136.0	slight cloud	30.0	1.17	1.0
1000	—	34.20	40	18.75	628	6.78	19.5	12.02	145.5	CLEAR	35.0	1.37	1.0
1005	—	35.95	40	18.87	800	6.62	18.9	12.40	152.1	CLEAR	40.0	1.56	1.0
1007	LOWER PUMP 5'	—	45	—	—	—	—	—	—	—	—	—	1.0
1015	—	38.03	45	19.19	1198	6.22	14.2	13.12	174.9	CLEAR	50.0	1.95	1.0
—	~~Vacated well~~ TN	—	—	—	—	—	—	—	—	—	—	—	—

Fe+2 (ppm) — Taken from first bailer immediately before sampling.

WATER LEVEL (ft btoc) AT TIME OF SAMPLING: 46.73 FILTER LOT # N/A

Comments: Two pages

PARAMETERS FOR WATER QUALITY STABILIZATION

Temperature ±1 C (1.8 F)	Conductivity ± 5%
pH ± 0.1	Turbidity 5 NTUs

Note: All water levels and pump depths are measured from the notch in the top of the well casing. If volatiles are detected above background in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities.

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Telephone (805) 681-3100
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GROUNDWATER MONITORING WELL
FIELD DATA LOG SHEET - PURGING

DATE 13 March 2006 SITE NUMBER 24

PROGRAM NAME B6 MP TRIP BLANK I.D. V24TB1217

MONITORING WELL IDENTIFICATION 24-MW-26A

SAMPLE I.D. V24MW26A DUPLICATE I.D. / COLLECTION TIME —

STATIC WATER LEVEL (ft btoc) 10.94 TOTAL WELL DEPTH (ft btoc) 50.4

WATER COLUMN (feet) 39.46 CASING DIAMETER (in) 4

WELL VOLUME (V) (gals) 25.65 3 V (gals) 76.95 BAILER BOX # 206

PURGING DEVICE 2" SUBMERSIBLE GRUNDFOS PUMP

SAMPLING DEVICE DISPOSABLE TEFLON BAILER

PID READING IN CASING (ppm) (initial) 0.0 (vented to) 0.0

PID READING IN BREATHING ZONE (ppm) (initial) 0.0 (vented to) 0.0

SAMPLER'S SIGNATURE

Time	Activity	Water Level (ft btoc)	Pump Depth (ft btoc)	Temp (Deg. C)	EC (µmhos/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (gals)	Well Volumes Purged	Flow Rate (GPM)
—	~~Arrived at well~~ TN	—	—	—	—	—	—	—	—	—	—	—	—
—	~~Begin Purge~~ TN	—	—	—	—	—	—	—	—	—	—	—	—
1025	—	41.93	45	19.13	1132	6.37	34.8	13.03	167.9	slight cloud	60.0	2.34	1.0
1030	Lower pump 5'	—	50	—	—	—	—	—	—	—	—	—	1.0
1035	—	45.14	50	19.26	1533	6.00	23.9	13.17	192.3	slight cloud	70.0	2.73	1.0
1045	END PURGE / WELL DRY	—	—	—	—	—	—	—	—	—	—	—	—
1050	SAMPLE	46.73	—	17.48	1530	6.24	27.2	12.30	227.8	slight cloud	—	—	—
1055	Vacated well	—	—	—	—	—	—	—	—	—	—	—	—

Fe+2 (ppm) — Taken from first bailer immediately before sampling.

WATER LEVEL (ft btoc) AT TIME OF SAMPLING: 46.73 FILTER LOT # N/A

Comments:

PARAMETERS FOR WATER QUALITY STABILIZATION

Temperature ±1 C (1.8 F)	Conductivity ±5%
pH ±0.1	Turbidity 5 NTUs

Note: All water levels and pump depths are measured from the notch in the top of the well casing. If volatiles are detected above background in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities.

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Telephone (805) 681-3100
Telefax (805) 681-3108

GROUNDWATER MONITORING WELL
FIELD DATA LOG SHEET - PURGING

DATE 13 March 2006 SITE NUMBER 24

PROGRAM NAME BGMP TRIP BLANK I.D. V24TB1217

MONITORING WELL IDENTIFICATION 24-MW-26B

SAMPLE I.D. V24MW26B DUPLICATE I.D. / COLLECTION TIME —

STATIC WATER LEVEL (ft btoc) 11.89 TOTAL WELL DEPTH (ft btoc) 68.4

WATER COLUMN (feet) 56.5+ (WP) CASING DIAMETER (in) 4

WELL VOLUME (V) (gals) 36.73 3 V (gals) 110.20 BAILER BOX # 206

PURGING DEVICE 2" SUBMERSIBLE GRUNDFOS PUMP

SAMPLING DEVICE DISPOSABLE TEFLON BAILER

PID READING IN CASING (ppm) (initial) 1.0 (vented to) 0.0

PID READING IN BREATHING ZONE (ppm) (initial) 0.0 (vented to) 0.0

SAMPLER'S SIGNATURE Dan Feil

Time	Activity	Water Level (ft btoc)	Pump Depth (ft btoc)	Temp (Deg. C)	EC (µmhos/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (gals)	Well Volumes Purged	Flow Rate (GPM)
1058	Arrived at well	—	—	—	—	—	—	—	—	—	—	—	—
1100	Begin Purge	—	68	—	—	—	—	—	—	—	—	—	1.5
1105	—	20.25	68	18.26	1215	5.85	38.1	13.10	214.5	slight cloudy	7.5	0.21	1.5
1115	—	30.60	68	18.85	1188	5.73	4.99	11.19	210.5	clear	22.5	0.62	1.5
1125	—	40.30	68	19.14	1190	5.86	1.07	11.36	200.1	clear	37.5	1.02	1.5
1135	—	43.40	68	19.04	1152	5.89	1.13	10.99	198.4	clear	52.5	1.43	1.5
1145	—	49.42	68	19.15	1131	5.90	1.21	11.18	196.5	CLEAR	67.5	1.84	1.5
1155	—	52.49	68	19.25	1149	5.88	1.01	11.36	200.6	CLEAR	82.5	2.25	1.5
1205	—	55.00	68	19.26	1166	5.84	0.91	11.03	204.8	CLEAR	97.5	2.65	1.5
1215	—	55.94	68	19.20	1164	5.84	0.82	10.78	200.3	clear	112.5	3.06	1.5
1216	End Purge												
1300	Sample	23.00	—	17.62	1066	6.30	4.51	11.76	257.8	CLEAR	—	—	—
1304	Vacated well	—	—	—	—	—	—	—	—	—	—	—	—

Fe+2 (ppm) — Taken from first bailer immediately before sampling.

WATER LEVEL (ft btoc) AT TIME OF SAMPLING: 23.00 FILTER LOT # N/A

Comments:

PARAMETERS FOR WATER QUALITY STABILIZATION

Temperature ±1 C (1.8 F)	Conductivity ±5%
pH ±0.1	Turbidity 5 NTUs

Note: All water levels and pump depths are measured from the notch in the top of the well casing. If volatiles are detected above background in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities.

Form number Tt-O-050 (9/05)

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TETRA TECH, INC.
4213 State Street, STE 100
Santa Barbara, CA 93110
Telephone (805) 681-3100
Telefax (805) 681-3108

GROUNDWATER MONITORING WELL
FIELD DATA LOG SHEET - PURGING

DATE 3/14/06 SITE NUMBER 24

PROGRAM NAME BGMP TRIP BLANK I.D. V24TB1221

MONITORING WELL IDENTIFICATION 24-MW-27B

SAMPLE I.D. V24MW27B DUPLICATE I.D. / COLLECTION TIME V99W636 / 1710

STATIC WATER LEVEL (ft btoc) 12.01 TOTAL WELL DEPTH (ft btoc) 69.8

WATER COLUMN (feet) 57.8 CASING DIAMETER (in) 4

WELL VOLUME (V) (gals) 37.7 3 V (gals) 113.1 BAILER BOX # 206

PURGING DEVICE 2" SUBMERSIBLE GRUNDFOS PUMP

SAMPLING DEVICE DISPOSABLE TEFLON BAILER

PID READING IN CASING (ppm) (initial) 1.8 (vented to) 0.0

PID READING IN BREATHING ZONE (ppm) (initial) 0.0 (vented to) 0.0

SAMPLER'S SIGNATURE

Time	Activity	Water Level (ft btoc)	Pump Depth (ft btoc)	Temp (Deg. C)	EC (µmhos/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (gals)	Well Volumes Purged	Flow Rate (GPM)
1340	Arrived at well	—	—	—	—	—	—	—	—	—	—	—	—
1350	Begin Purge	—	68	—	—	—	—	—	—	—	—	—	2.5
1400		30.40	↓	19.36	1370	5.96	14.5	0.79	-8.0	Clear	25.0	0.66	↓
1410	Raise Pump	37.51	63	19.48	1365	5.90	5.37	0.56	-1.7	Clear	50.0	1.33	
1420		40.38	↓	19.36	1364	5.90	4.39	0.55	7.7	Clear	75.0	1.99	
1430	Raise Pump	41.67	58	19.38	1361	5.89	2.89	0.40	15.0	Clear	100.0	2.65	
1440		43.21	↓	19.38	1362	5.90	2.12	0.38	27.7	Clear	125.0	3.32	↓
1441	End Purge	—	—	—	—	—	—	—	—	—	—	—	—
1520	Sample	19.30	—	18.16	1376	6.42	3.93	4.14	94.6	Clear	—	—	—
1530	Vacated well	—	—	—	—	—	—	—	—	—	—	—	—

Fe+2 (ppm) — Taken from first bailer immediately before sampling.

WATER LEVEL (ft btoc) AT TIME OF SAMPLING: 19.30 FILTER LOT # —

Comments:

PARAMETERS FOR WATER QUALITY STABILIZATION

Temperature ±1 C (1.8 F)	Conductivity ± 5%
pH ± 0.1	Turbidity 5 NTUs

Note: All water levels and pump depths are measured from the notch in the top of the well casing. If volatiles are detected above background in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities.

Form number Tt-O-050 (9/05)

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TETRA TECH, INC.
4213 State Street, STE 100
Santa Barbara, CA 93110
Telephone (805) 681-3100
Telefax (805) 681-3108

GROUNDWATER MONITORING WELL
FIELD DATA LOG SHEET - PURGING

DATE 3/14/06 SITE NUMBER 24

PROGRAM NAME BGMP TRIP BLANK I.D. V24TB1231

MONITORING WELL IDENTIFICATION 24-MW-28A

SAMPLE I.D. V24MW28A DUPLICATE I.D. / COLLECTION TIME - / -

STATIC WATER LEVEL (ft btoc) 11.08 TOTAL WELL DEPTH (ft btoc) 45.1

WATER COLUMN (feet) 34.0 CASING DIAMETER (in) 2

WELL VOLUME (V) (gals) 5.5 3 V (gals) 16.5 BAILER BOX # 206

PURGING DEVICE 2" SUBMERSIBLE GRUNDFOS PUMP

SAMPLING DEVICE DISPOSABLE TEFLON BAILER

PID READING IN CASING (ppm) (initial) 0.5 (vented to) 0.0

PID READING IN BREATHING ZONE (ppm) (initial) 0.0 (vented to) 0.0

SAMPLER'S SIGNATURE Matthew Hamilton / M. Jones

Time	Activity	Water Level (ft btoc)	Pump Depth (ft btoc)	Temp (Deg. C)	EC (µmhos/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (gals)	Well Volumes Purged	Flow Rate (GPM)
1200	Arrived at well	—	—	—	—	—	—	—	—	—	—	—	—
1212	Begin Purge	—	44	—	—	—	—	—	—	—	—	—	1.0
1217		20.58	↓	19.08	2991	6.33	+200	6.65	116.9	Cloudy	5.0	0.91	↓
1222		23.95		19.77	3060	6.28	76.9	5.60	110.2	Cloudy	10.0	1.82	
1227		25.59		20.11	3055	6.27	37.5	5.39	105.3	Cloudy	15.0	2.73	
1232		30.50		20.39	3017	6.29	21.5	4.73	105.0	Clear	20.0	3.64	
1237		33.89		20.27	2933	6.27	27.1	4.92	104.4	Clear	25.0	4.55	
1242		35.52	↓	20.34	2947	6.26	27.0	4.42	103.5	Clear	30.0	5.45	↓
1243	End Purge	—	—	—	—	—	—	—	—	—	—	—	—
1515	SAMPLE	12.48	—	18.56	3426	6.44	94.9	5.71	-2.5	Cloudy	—	—	—
1525	Vacated well	—	—	—	—	—	—	—	—	—	—	—	—

Fe+2 (ppm) — Taken from first bailer immediately before sampling.

WATER LEVEL (ft btoc) AT TIME OF SAMPLING: 12.48 FILTER LOT # —

Comments:

PARAMETERS FOR WATER QUALITY STABILIZATION

Temperature ±1 C (1.8 F)	Conductivity ± 5%
pH ± 0.1	Turbidity 5 NTUs

Note: All water levels and pump depths are measured from the notch in the top of the well casing. If volatiles are detected above background in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities.

TETRA TECH, INC.
4213 State Street, STE 100
Santa Barbara, CA 93110
Telephone (805) 681-3100
Telefax (805) 681-3108

GROUNDWATER MONITORING WELL
FIELD DATA LOG SHEET - PURGING

DATE 3/14/06 SITE NUMBER 24

PROGRAM NAME BCMP TRIP BLANK I.D. V24TB1321

MONITORING WELL IDENTIFICATION 24-MW-29A

SAMPLE I.D. V24MW29A DUPLICATE I.D. / COLLECTION TIME -1-

STATIC WATER LEVEL (ft btoc) 10.80 TOTAL WELL DEPTH (ft btoc) 45.8

WATER COLUMN (feet) 35.0 CASING DIAMETER (in) 2

WELL VOLUME (V) (gals) 5.71 3 V (gals) 17.3 BAILER BOX # 206

PURGING DEVICE 2" SUBMERSIBLE GRUNDFOS PUMP

SAMPLING DEVICE DISPOSABLE TEFLON BAILER

PID READING IN CASING (ppm) (initial) 0.0 (vented to) 0.0

PID READING IN BREATHING ZONE (ppm) (initial) 0.0 (vented to) 0.0

SAMPLER'S SIGNATURE Mark Nelson
M. Nelson

Time	Activity	Water Level (ft btoc)	Pump Depth (ft btoc)	Temp (Deg. C)	EC (µmhos/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (gals)	Well Volumes Purged	Flow Rate (GPM)
1250	Arrived at well	—	—	—	—	—	—	—	—	—	—	—	—
1256	Begin Purge	—	44	—	—	—	—	—	—	—	—	—	1.0
1301		21.52	↓	18.77	1472	6.47	+200	6.59	94.9	Cloudy white	5.0	0.88	
1306	Raise pump	22.53	40	19.40	1569	6.00	+200	6.43	121.9	Cloudy	10.0	1.75	
1311		26.24	↓	19.86	1500	5.99	+200	6.26	129.3	Cloudy	15.0	2.63	
1316	Raise pump	28.53	36	19.88	1598	5.85	95.1	6.36	138.3	Cloudy	20.0	3.50	
1321		28.60	↓	19.94	1616	5.83	66.0	6.33	145.9	Cloudy	25.0	4.38	
1326		**	↓	19.95	1622	5.83	52.0	6.22	147.7	Cloudy	30.0	5.25	↓
1327	End Purge	—											
1500	SAMPLE	—		18.53	1613	6.30	64.5	6.32	-1.0	cloudy	—	—	
1505	Vacated well	—	—	—	—	—	—	—	—	—	—	—	—

Fe+2 (ppm) — Taken from first bailer immediately before sampling.

WATER LEVEL (ft btoc) AT TIME OF SAMPLING: 10.97 FILTER LOT # —

Comments: ** Water level unobtainable due to check valve.

PARAMETERS FOR WATER QUALITY STABILIZATION

Temperature ±1 C (1.8 F)	Conductivity ±5%
pH ±0.1	Turbidity 5 NTUs

Note: All water levels and pump depths are measured from the notch in the top of the well casing. If volatiles are detected above background in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities.

Form number Tt-O-050 (9/05)

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TETRA TECH, INC.
4213 State Street, STE 100
Santa Barbara, CA 93110
Telephone (805) 681-3100
Telefax (805) 681-3108

GROUNDWATER MONITORING WELL
FIELD DATA LOG SHEET - PURGING

DATE 03/13/06 SITE NUMBER 24 PURGING DEVICE 2" SUBMERSIBLE GRUNDFOS PUMP

PROGRAM NAME BGMP TRIP BLANK I.D. V24TB1217 SAMPLING DEVICE DISPOSABLE TEFLON BAILER

MONITORING WELL IDENTIFICATION 24-MW-30A PID READING IN CASING (ppm) (initial) 0.0 (vented to) 0.0

SAMPLE I.D. V24MW30A DUPLICATE I.D. / COLLECTION TIME — / — PID READING IN BREATHING ZONE (ppm) (initial) 0.0 (vented to) 0.0

STATIC WATER LEVEL (ft btoc) 8.84 TOTAL WELL DEPTH (ft btoc) 45.1

WATER COLUMN (feet) 36.2 CASING DIAMETER (in) 2 SAMPLER'S SIGNATURE Joseph Chi

WELL VOLUME (V) (gals) 6.2 3 V (gals) 18.6 BAILER BOX # 205 M. Singh

Time	Activity	Water Level (ft btoc)	Pump Depth (ft btoc)	Temp (Deg. C)	EC (µmhos/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (gals)	Well Volumes Purged	Flow Rate (GPM)
1042	Arrived at well	—	—	—	—	—	—	—	—	—	—	—	—
1053	Begin Purge	—	44.5	—	—	—	—	—	—	—	—	—	1.00
1058		18.73	44.5	18.98	1904	6.52	24.3	4.45	-33.5	Clear	5.00	0.80	
1059	Raise pump		40.0										
1103		21.43	40.0	19.28	1884	6.26	84.2	3.92	3.93	Cloudy	10.00	1.60	
1106	Raise pump		35.0										
1108		24.23	35.0	19.20	1831	6.20	129	4.95	-59.0	Cloudy	15.00	2.40	
1109	Raise pump		30.0										
1113		27.27	30.0	19.49	2100	6.0	38.2	3.28	-65.5	Cloudy	20.00	3.20	
1116	paused purging / Lower pump						— 44.5 ft bgl				23.00	3.80	
1128	Resume purging												
1130		19.38	44.5	14.88	1864	6.38	+200	6.92	7.3	Cloudy	25.00	4.00	
1135		23.56	44.5	19.27	2241	6.12	82.3	5.14	-70.9	Cloudy	30.00	4.80	
Continue	~~Vacated well~~												

Fe+2 (ppm) — Taken from first bailer immediately before sampling.

WATER LEVEL (ft btoc) AT TIME OF SAMPLING: — FILTER LOT # —

Comments: Generator had a malfunction at 1116.

PARAMETERS FOR WATER QUALITY STABILIZATION

Temperature ±1 C (1.8 F)	Conductivity ± 5%
pH ± 0.1	Turbidity 5 NTUs

Note: All water levels and pump depths are measured from the notch in the top of the well casing. If volatiles are detected above background in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities.

Form number Tt-O-050 (9/05)

TETRA TECH, INC.
4213 State Street, STE 100
Santa Barbara, CA 93110
Telephone (805) 681-3100
Telefax (805) 681-3108

GROUNDWATER MONITORING WELL
FIELD DATA LOG SHEET - PURGING

DATE 03/13/06 SITE NUMBER 24 PURGING DEVICE 2" SUBMERSIBLE GRUNDFOS PUMP

PROGRAM NAME BMP TRIP BLANK I.D. V24TB1217 SAMPLING DEVICE DISPOSABLE TEFLON BAILER

MONITORING WELL IDENTIFICATION 24-MW-30A PID READING IN CASING (ppm) (initial) 0.0 (vented to) 0.0

SAMPLE I.D. V24MW30A DUPLICATE I.D. / COLLECTION TIME -/- PID READING IN BREATHING ZONE (ppm) (initial) 0.0 (vented to) 0.0

STATIC WATER LEVEL (ft btoc) 8.84 TOTAL WELL DEPTH (ft btoc) 45.1

WATER COLUMN (feet) 36.2 CASING DIAMETER (in) 2 SAMPLER'S SIGNATURE Jessica Chi

WELL VOLUME (V) (gals) 6.2 3 V (gals) 18.6 BAILER BOX # 205

Time	Activity	Water Level (ft btoc)	Pump Depth (ft btoc)	Temp (Deg. C)	EC (µmhos/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (gals)	Well Volumes Purged	Flow Rate (GPM)
~~Continue~~	~~Arrived at well~~	—	—	—	—	—	—	—	—	—	—	—	—
—	~~Begin Purge~~	—		—	—	—	—	—	—	—	—	—	—
1137		25.04	44.5	19.51	2236	6.07	39.1	2.93	-71.1	cloudy	32.00	5.16	1.00
1138	END PURGE										33.00	5.32	1.00
1230	SAMPLE	—		17.66	1989	6.43	17.6	6.37	-47.8	clear	—	—	—
1250	Vacated well	—	—	—	—	—	—	—	—	—	—	—	—

Fe+2 (ppm) — Taken from first bailer immediately before sampling.

WATER LEVEL (ft btoc) AT TIME OF SAMPLING: 10.36 FILTER LOT # —

Comments:

PARAMETERS FOR WATER QUALITY STABILIZATION

Temperature ±1 C (1.8 F) Conductivity ±5%

pH ±0.1 Turbidity 5 NTUs

Note: All water levels and pump depths are measured from the notch in the top of the well casing. If volatiles are detected above background in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities.

Form number Tt-O-050 (9/05)

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TETRA TECH, INC.
4213 State Street, STE 100
Santa Barbara, CA 93110
Telephone (805) 681-3100
Telefax (805) 681-3108

GROUNDWATER MONITORING WELL
FIELD DATA LOG SHEET - PURGING

DATE 03/13/06 SITE NUMBER 24

PROGRAM NAME BGMP TRIP BLANK I.D. V2478 1217

MONITORING WELL IDENTIFICATION 24-MW-31B

SAMPLE I.D. — DUPLICATE I.D. / COLLECTION TIME —/—

STATIC WATER LEVEL (ft btoc) 65.85 TOTAL WELL DEPTH (ft btoc) 66.6

WATER COLUMN (feet) 0.75 CASING DIAMETER (in) 4

WELL VOLUME (V) (gals) 0.49 3 V (gals) 1.46 BAILER BOX # —

PURGING DEVICE 2" SUBMERSIBLE GRUNDFOS PUMP

SAMPLING DEVICE DISPOSABLE TEFLON BAILER

PID READING IN CASING (ppm) (initial) 0.0 (vented to) 0.0

PID READING IN BREATHING ZONE (ppm) (initial) 0.0 (vented to) 0.0

SAMPLER'S SIGNATURE Jason Chi / M. Nyhan

Time	Activity	Water Level (ft btoc)	Pump Depth (ft btoc)	Temp (Deg. C)	EC (µmhos/cm)	pH	Turbidity (NTU)	Dissolved Oxygen (mg/L)	ORP (mV)	Color	Volume Purged (gals)	Well Volumes Purged	Flow Rate (GPM)
1010	Arrived at well	—	—	—	—	—	—	—	—	—	—	—	—
~~1012~~	Begin Purge	—	—	—	—	—	—	—	—	—	—	—	—
1012	Insufficient Water, No Sample collected.									—			
1013	Vacated well	—	—	—	—	—	—	—	—	—	—	—	—

Fe+2 (ppm) — Taken from first bailer immediately before sampling.

WATER LEVEL (ft btoc) AT TIME OF SAMPLING: — FILTER LOT # —

Comments:

PARAMETERS FOR WATER QUALITY STABILIZATION

Temperature ±1 C (1.8 F)	Conductivity ±5%
pH ±0.1	Turbidity 5 NTUs

Note: All water levels and pump depths are measured from the notch in the top of the well casing. If volatiles are detected above background in the breathing zone during the initial screening, the breathing zone will be periodically monitored during purging and sampling activities.

Form number Tt-O-050 (9/05)

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APPENDIX B CHAIN-OF-CUSTODY RECORDS

TETRA TECH, INC.
4213 State Street, Suite 100
Santa Barbara, CA 93110
Phone (805) 681-3100
FAX (805) 681-3108

SHIPPED TO: EMAX Labs
1835 West 205th Street
Torrance, CA 90501

I14/VW01-02

06C067

CHAIN OF CUSTODY RECORD

SITE 24 DATE 3/6/06 PAGE 1 OF 2

CLIENT: Vandenberg, AFB
PROJECT NAME: BGMP
PROJECT MANAGER: Kevin McNamara
TC#: T99105-06
SAMPLERS (Signatures)

	SAMPLE NO.	DATE	TIME	SW8260 Volatile Organics	SW8015 Diesel/~~Gasoline~~	SW8081 Pesticides	SW8082 PCBs	SW8270 SVOCs	SW8270 SIM PAHs	SW6010 Metals (CAM 17 Sb, As, Cd, Se, Tl only)	E218.6 Chromium VI	E300/310.1/160.1 CL/S/ALK/TDS	E353.3/E415.1 N / TOC	RSK 175	E376.2 Sulfide	E314.0 Perchlorate	Matrix Type	Container Type	Number of Containers	Filtered Sample	OBSERVATIONS/COMMENTS
1	V24TB1209	3/6/06	0800	X													W	6	2		
2	V24MW2		1025	X	X					X								6	6		no metals
3	V24MW2F		1030							X								P	1	X	
4	V24MW10B		1130	X	X													6	6		
5	V24MW10BF		1135							X								P	1	X	
6	V24MW12A		1500	X	X													6	6		
7	V24MW12AF		1505							X								P	1	X	
8	V24MW12B		1535	X	X													6	6		
9	V24MW12BF		1540							X								P	1	X	
10	V99W627	↓	1700	X	X												↓	6	6		

ANALYTICAL METHODS

TURN-AROUND TIME: Standard

OBSERVATIONS/COMMENTS: Metals list for all metals samples includes Al, Sb, As, Cd, Se, and Tl only!

MATRIX TYPE: S = Soil, W = Water, SD = Sediment
CONTAINER TYPE: E = Encore; G = Glass, SS = Stainless Steel, P = Plastic
PRESERVATIVES: All samples are preserved at 4° C. Water samples are preserved as indicated on the sample labels.
T=2.6°C T=2.5°C
TEMPERATURE BLANK EACH COOLER: YES NO

RELINQUISHED BY: Joachim Eberhardt	SIGNATURE:	TETRA TECH, INC.	DATE: 3/7/06	TIME: 1100	TOTAL NUMBER OF CONTAINERS: 36 of 52
RECEIVED BY: A. GALICIA	SIGNATURE:	COMPANY: EMAX	DATE: 3/7/06	TIME: 1130	METHOD OF SHIPMENT
RELINQUISHED BY: A. GALICIA	SIGNATURE:	COMPANY: EMAX	DATE: 3/7/06	TIME: 1455	SPECIAL SHIPMENT/HANDLING/STORAGE REQUIREMENTS:
RECEIVED BY: JONAVNA	SIGNATURE:	COMPANY: EMAX	DATE: 3/7/06	TIME: 1455	

T99105

DISTRIBUTION: White = Lab Canary = Client Pink = Tetra Tech, Inc.

TETRA TECH, INC.
4213 State Street, Suite 100
Santa Barbara, CA 93110
Phone (805) 681-3100
FAX (805) 681-3108

SHIPPED TO: EMAX Labs
1835 West 205th Street
Torrance, CA 90501

06C0067

CHAIN OF CUSTODY RECORD

SITE 24 DATE 3/6/06 PAGE 2 OF 2

CLIENT	Vandenberg, AFB
PROJECT NAME	BGMP
PROJECT MANAGER	Kevin McNamara
TC#	T99105-06
SAMPLERS (Signatures)	X [signature] X [signature]

	SAMPLE NO.	DATE	TIME	SW8260 Volatile Organics	SW8015 Diesel/Gasoline	SW8081 Pesticides	SW8082 PCBs	SW8270 SVOCs	SW8270 SIM PAHs	SW6010 Metals (Al, Sb, As, Cd, Se, Tl only)	E218.6 Chromium VI	E300/310.1/160.1 CL/S/ALK/TDS	E353.3/E415.1 N / TOC	RSK 175	E376.2 Sulfide	E314.0 Perchlorate	SW8015 Gasoline/Methanol	SW8015 Methanol/Ethanol	SW8081/SW8141A OCP/OPP	Matrix Type	Container Type	Number of Containers	Filtered Sample
11	V99W627F	3/6/06	1705							X										W	P	1	X
12	V24PMW2		1515	X	X			X									X	X	X	1	G	1	
13	V24PMW2F		1520							X										↓	P	1	X

TURN-AROUND TIME: Standard

OBSERVATIONS/COMMENTS: Metals analytes include Al, Sb, As, Cd, Se, and Tl only!

MATRIX TYPE: S = Soil, W = Water, SD = Sediment
CONTAINER TYPE: E = Encore, G = Glass, SS = Stainless Steel, P = Plastic
PRESERVATIVES: All samples are preserved at 4° C. Water samples are preserved as indicated on the sample labels.
TEMPERATURE BLANK EACH COOLER: YES NO

RELINQUISHED BY: Joachim Eberhardt	SIGNATURE:	TETRA TECH, INC.	DATE: 3/7/06	TIME: 1100	TOTAL NUMBER OF CONTAINERS: 16 of 52
RECEIVED BY: A. GALICIA	SIGNATURE:	COMPANY: EMAX	DATE: 3/7/06	TIME: 1130	METHOD OF SHIPMENT
RELINQUISHED BY: A. GALICIA	SIGNATURE:	COMPANY: EMAX	DATE: 3/7/06	TIME: 1455	SPECIAL SHIPMENT/HANDLING/STORAGE REQUIREMENTS:
RECEIVED BY: INDRA PATEL	SIGNATURE:	COMPANY: EMAX	DATE: 3-7-06	TIME: 1455	

5683

DISTRIBUTION: White = Lab Canary = Client Pink = Tetra Tech, Inc.

TETRA TECH, INC.
4213 State Street, Suite 100
Santa Barbara, CA 93110
Phone (805) 681-3100
FAX (805) 681-3108

SHIPPED TO: EMAX Labs
1835 West 205th Street
Torrance, CA 90501

06C080

CHAIN OF CUSTODY RECORD

B10 | B12 | B13 | V001-34 | 36

SITE 24 DATE 3/7/06 PAGE 1 OF 2

CLIENT	Vandenberg AFB
PROJECT NAME	BGMP
PROJECT MANAGER	Kevin McNamara
TC#	T99105-06
SAMPLERS (Signatures)	X [signature] X [signature]

TURN-AROUND TIME: Standard

#	SAMPLE NO.	DATE	TIME	SW8260 Volatile Organics	SW8015 (Diesel) / ~~Gasoline~~	SW8081 Pesticides	SW8082 PCBs	SW8270 SVOCs	SW8270 SIM ~~PAHs~~ Modified 1,4 Dioxane	SW6010 / 7470 / 7471 Metals	E218.6 Chromium VI	E300/310.1/160.1 CL/S/ALK/TDS	E353.3/E415.1 N / TOC	RSK 175	E376.2 Sulfide	E314.0 Perchlorate	SW6010B (Al, Sb, As, Cd, Se, Tl)	SW8015B Gasoline	SW 8015B Methanol/Ethanol	SW8081/SW8141A OCP/OPP	Matrix Type	Container Type	Number of Containers	Filtered Sample	OBSERVATIONS/COMMENTS
1	V24PMW3	3/7/06	1425	X	X			X										X	X	X	W	G	14		
2	V24PMW3F	↓	1430														X				W	P	1	Y	
3	V24PMW4		1350	X	X			X	X									X			W	G	11		
4	V24PMW4F		1355														X				W	P	1	Y	
5	V24PMW5		1030	X	X			X	X									X			W	G	11		
6	V24PMW5F		1035														X				W	P	1	Y	
7	V24MW5A		1450	X	X			X	X												W	G	7		only one Diesel Amber
8	V24MW5AF		1455														X				W	P	1	Y	
9	V24MW5B		1220	X	X				X									X			W	G	10		
10	V24MW5BF	↓	1225														X				W	P	1	Y	

MATRIX TYPE: S = Soil, W = Water, SD = Sediment

CONTAINER TYPE: E = Encore, G = Glass, SS = Stainless Steel, P = Plastic

PRESERVATIVES: All samples are preserved at 4° C. Water samples are preserved as indicated on the sample labels.

TEMPERATURE BLANK EACH COOLER: (YES) NO

	SIGNATURE	COMPANY	DATE	TIME
RELINQUISHED BY: Joachim E	[signature]	TETRA TECH, INC.	3/8/06	1130
RECEIVED BY: A. GALICIA	[signature]	EMAX	3/8/06	1130
RELINQUISHED BY: A. GALICIA	[signature]	EMAX	3/8/06	1506
RECEIVED BY: V-LUNA	[signature]	emax	3/8/06	1506

TOTAL NUMBER OF CONTAINERS: 58 of 106

METHOD OF SHIPMENT:

SPECIAL SHIPMENT/HANDLING/STORAGE REQUIREMENTS:

1) 3.4°C 3) 3.0°C
2) 3.8°C 4) 3.5°C

Tt-IRP-009 (04/26/05)

DISTRIBUTION: White = Lab Canary = Client Pink = Tetra Tech, Inc.

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4213 State Street, Suite 100
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Phone (805) 681-3100
FAX (805) 681-3108

SHIPPED TO: EMAX Labs
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Torrance, CA 90501

06C080

CHAIN OF CUSTODY RECORD

SITE 24 DATE 3/7/06 PAGE 2 OF 2

CLIENT: Vandenberg, AFB
PROJECT NAME: BGMP
PROJECT MANAGER: Kevin McNamara
TC#: T99105-06
SAMPLERS (Signatures)
X
X

	SAMPLE NO.	DATE	TIME	SW8260 Volatile Organics	SW8015 ~~Gasoline~~ Diesel	SW8081 Pesticides	SW8082 PCBs	SW8270 SVOCs	SW8270(SIM ~~PAHs~~ 1,4 Dioxane)	SW6010 (7470) ~~7471~~ Metals	E218.6 Chromium VI	E300/310.1/160.1 CL/S/ALK/TDS	E353.3/E415.1 N / TOC	RSK 175	E376.2 Sulfide	E314.0 Perchlorate	SW6010B (Al,Sb,As,Cd,Se,Tl)	SW8015B Gasoline	SW8015B Ethanol/Methanol	SW8081/SW8141A OCP/OPP	Matrix Type	Container Type	Number of Containers	Filtered Sample	OBSERVATIONS/COMMENTS:
11	V24TB1211	3/7/06	0800	X																	W	G	2		
12	V24PMW13		1410	X	X																W	G	6		
13	V24PMW13F		1415														X				W	P	1	Y	
14	V24MW13B		1230	X	X																W	G	6		
15	V24MW13BF		1235														X				W	P	1	Y	
16	V24PMW22		1345	X	X													X			W	G	9		
17	V24PMW22F		1350														X				W	P	1	Y	
18	V24MW22B		1020	X	X																W	G	6		
19	V24MW22BF		1025														X				W	P	1	Y	
20	V99BEB205	↓	0900	X	X			X	X	X								X	X	X	W	G	15		Number of Container : 15

MATRIX TYPE: S = Soil; W = Water; SD = Sediment
CONTAINER TYPE: E = Encore; G = Glass; SS = Stainless Steel; P = Plastic
PRESERVATIVES: All samples are preserved at 4° C. Water samples are preserved as indicated on the sample labels.
TEMPERATURE BLANK EACH COOLER: YES NO

RELINQUISHED BY:	SIGNATURE:	TETRA TECH, INC.	DATE: 3/8/06	TIME: 1130	TOTAL NUMBER OF CONTAINERS: 48 OF 106
RECEIVED BY: A. GALICIA	SIGNATURE:	COMPANY: EMAX	DATE: 3/8/06	TIME: 1130	METHOD OF SHIPMENT
RELINQUISHED BY: A. GALICIA	SIGNATURE:	COMPANY: EMAX	DATE: 3/8/06	TIME: 1506	SPECIAL SHIPMENT/HANDLING/STORAGE REQUIREMENTS:
RECEIVED BY: JON LUNA	SIGNATURE:	COMPANY: EMAX	DATE: 3/8/06	TIME: 1500	

Tt-IRP-009 (04/26/05)

DISTRIBUTION: White = Lab Canary = Client Pink = Tetra Tech, Inc.

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06C080

CHAIN OF CUSTODY RECORD

SITE 24 DATE 3/7/06 PAGE 1 OF 2

CLIENT	Vandenberg, AFB
PROJECT NAME	BGMP
PROJECT MANAGER	Kevin McNamara
TC#	T99105-06
SAMPLERS (Signatures)	X [signature] X [signature]

TURN-AROUND TIME: Standard

ANALYTICAL METHODS

	SAMPLE NO.	DATE	TIME	SW8260 Volatile Organics	SW8015 ~~Diesel~~ / Gasoline (circled)	SW8081 Pesticides	SW8082 PCBs	SW8270 SVOCs	SW8270 SIM PAHs	SW6010 / 7470 / 7471 Metals	E218.6 Chromium VI	E300/310.1/160.1 CL/S/ALK/TDS	E353.3/E415.1 N / TOC	RSK 175	E376.2 Sulfide	E314.0 Perchlorate	SW6010B Select Metals (Al, Sb, Cd, Se, Ag, Tl)	SW8015B Diesel	SW8081/SW8141A OCP/OPP	SW8015 TPH as METH/ETH	Matrix Type	Container Type	Number of Containers	Filtered Sample	OBSERVATIONS/COMMENTS
21	V99W630	3/7/06	1600	X	X			X										X	X	X	W	G	14		
22	V99W630F	↓	1605														X				W	P	1	X	
23	V24PMW1	↓	1140	X	X			X										X	X	X	W	G	14		
24	V24PMW1F	↓	1145														X				W	P	1	X	
25	V24MW9A	↓	1420	X																	W	G	4		
26	V24MW9B	↓	1445	X																	W	G	4		
27	V24MW22A	↓	1635	X													~~X~~ (initialed)	X			W	G	6		No Metals Analysis
28	V24MW22AF	↓	1640														X				W	P	1	X	
29	V24MW3B	↓	1540	X														X			W	G	6		
30	V24MW3BF	↓	1545														X				W	P	1	X	

MATRIX TYPE: S = Soil, W = Water, SD = Sediment

CONTAINER TYPE: G = Glass, SS = Stainless Steel, P = Plastic, E = Encore

PRESERVATIVES: All samples are preserved at 4° C. Water samples are preserved as indicated on the sample labels.

TEMPERATURE BLANK EACH COOLER: YES (circled) NO

	SIGNATURE	COMPANY	DATE	TIME
RELINQUISHED BY: Joaquin E.	[signature]	TETRA TECH, INC.	3/8/06	1130
RECEIVED BY: A. GALICIA	[signature]	EMAX	3/8/06	1130
RELINQUISHED BY: A. GALICIA	[signature]	EMAX	3/8/06	1506
RECEIVED BY: J-LUNA	[signature]	emax	3/8/06	1506

TOTAL NUMBER OF CONTAINERS: 52 of 59

METHOD OF SHIPMENT: Courier

SPECIAL SHIPMENT/HANDLING/STORAGE REQUIREMENTS:

1005

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06C080

CHAIN OF CUSTODY RECORD

SITE 24 DATE 3/7/06 PAGE 2 OF 2

CLIENT: Vandenberg, AFB
PROJECT NAME: BGMP
PROJECT MANAGER: Kevin McNamara
TC#: T99105-06
SAMPLERS (Signatures)
X
X

SAMPLE NO.	DATE	TIME	SW8260 Volatile Organics	SW8015 Diesel/Gasoline	SW8081 Pesticides	SW8082 PCBs	SW8270 SVOCs	SW8270 SIM PAHs	SW6010 / 7470 / 7471 Metals	E218.6 Chromium VI	E300/310.1/160.1 CL/S/ALK/TDS	E353.3/E415.1 N / TOC	RSK 175	E376.2 Sulfide	E314.0 Perchlorate	SW6010B SELECT METALS (Al, As, Sb, Ca, Fe, Tl)	SW8015B TPH as DIESEL	Matrix Type	Container Type	Number of Containers	Filtered Sample
31 V99W631	3/7/06	1630	X														X	W	G	6	
32 V99W631F	↓	1635														X		W	P	1	X

TURN-AROUND TIME: Standard

OBSERVATIONS/COMMENTS:

MATRIX TYPE: S = Soil, W = Water, SD = Sediment
CONTAINER TYPE: G = Glass, SS = Stainless Steel, P = Plastic, E = Encore
PRESERVATIVES: All samples are preserved at 4° C. Water samples are preserved as indicated on the sample labels.
TEMPERATURE BLANK EACH COOLER: (YES) NO

RELINQUISHED BY: Joanna E.	SIGNATURE:	TETRA TECH, INC.	DATE: 3/8/06	TIME: 1120	TOTAL NUMBER OF CONTAINERS: 7 OF 59
RECEIVED BY: A. GALICIA	SIGNATURE:	COMPANY: EMAX	DATE: 3/8/06	TIME: 1130	METHOD OF SHIPMENT: Courier
RELINQUISHED BY: A. GALICIA	SIGNATURE:	COMPANY: EMAX	DATE: 3/8/06	TIME: 1506	SPECIAL SHIPMENT/HANDLING/STORAGE REQUIREMENTS:
RECEIVED BY: J. LUNA	SIGNATURE:	COMPANY: EMAX	DATE: 3/8/06	TIME: 1506	

5961

Tt-IRP-009 (04/26/05)

DISTRIBUTION: White = Lab Canary = Client Pink = Tetra Tech, Inc.

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J8 | J9 | V24V1-08

06C090

CHAIN OF CUSTODY RECORD

SITE 24 DATE 3/8/06 PAGE 1 OF 1

CLIENT: Vandenberg, AFB
PROJECT NAME: BGMP
PROJECT MANAGER: Kevin McNamara
TC#: T99105-06
SAMPLERS (Signatures)
X
X

TURN-AROUND TIME: Standard

OBSERVATIONS/COMMENTS:

	SAMPLE NO.	DATE	TIME	SW8260 Volatile Organics	SW8015 Diesel/~~Gasoline~~	SW8081 Pesticides	SW8082 PCBs	SW8270 SVOCs	SW8270 SIM PAHs	SW6010 / 7470 / 7471 Metals	E218.6 Chromium VI	E300/310.1/160.1 CL/S/ALK/TDS	E353.3/E415.1 N / TOC	RSK 175	E376.2 Sulfide	E314.0 Perchlorate	SW6010 (Al, Sb, As, Cd, Se, Tl only)			Matrix Type	Container Type	Number of Containers	Filtered Sample	OBSERVATIONS/COMMENTS
1	V24TB1212	3/8/06	0800	X																W	G	2		
2	V24MW8A		1355	X	X																G	6		
3	V24MW8AF		1400													X					P	1	X	
4	V24MW8A2		1320	X	~~X~~ DL																G	4		No diesel
5	V24MW8B		1310	X	X																G	6		
6	V24MW8BF		1315													X					P	1	X	
7	V24DMW9		1130	X																	G	4		
8	V24PMW10		1410	X	X																G	6		
9	V24PMW10F		1415													X					P	1	X	

MATRIX TYPE: S = Soil, W = Water, SD = Sediment
CONTAINER TYPE: E = Encore; G = Glass, SS = Stainless Steel, P = Plastic
PRESERVATIVES: All samples are preserved at 4° C. Water samples are preserved as indicated on the sample labels.
TEMPERATURE BLANK EACH COOLER: (YES) NO

RELINQUISHED BY: Francesca Perrell	SIGNATURE:	TETRA TECH, INC.	DATE: 3/9/06	TIME: 1105	TOTAL NUMBER OF CONTAINERS: 31
RECEIVED BY: A. GALICIA	SIGNATURE:	COMPANY: EMAX	DATE: 3/9/06	TIME: 1105	METHOD OF SHIPMENT: Courier
RELINQUISHED BY: A. GALICIA	SIGNATURE:	COMPANY: EMAX	DATE: 3/9/06	TIME: 1440	SPECIAL SHIPMENT/HANDLING/STORAGE REQUIREMENTS:
RECEIVED BY: INDRA PATEL	SIGNATURE:	COMPANY: EMAX	DATE: 3/9/06	TIME: 1440	

Cooler # 1 T=2.2°C Cooler # 3 T=3.3°C
Cooler # 2 T=3.2°C Cooler # 4 T=2.8°C

Tt-IRP-009 (04/26/05)

DISTRIBUTION: White = Lab Canary = Client Pink = Tetra Tech, Inc.

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06C090

CHAIN OF CUSTODY RECORD

SITE 24 DATE 8 MAR 2006 PAGE 1 OF 1

CLIENT: Vandenberg, AFB
PROJECT NAME: BGMP
PROJECT MANAGER: Kevin McNamara
TC#: T99105-06
SAMPLERS (Signatures)
X
X

	SAMPLE NO.	DATE	TIME	SW8260 Volatile Organics	SW8015 ~~Diesel~~ / ~~Gasoline~~	SW8081 Pesticides	SW8082 PCBs	SW8270 SVOCs	SW8270 SIM PAHs	SW6010 / 7470 / 7471 Metals	E218.6 Chromium VI	E300/310.1/160.1 CL/S/ALK/TDS	E353.3/E415.1 N / TOC	RSK 175	E376.2 Sulfide	E314.0 Perchlorate	SW8015 Gasoline	SW 8015 Methanol / Ethanol	SW 6010 Al, Sb, As, Cd, Se, Ti only	Matrix Type	Container Type	Number of Containers	Filtered Sample
10	V24MW3A	8MAR06	1440	X	X															W	G	6	
11	V24MW3AF		1445																X	W	P	1	X
12	V24PMW8		1325	X	X			X									X	X		W	G	13 (10)	
13	V24PMW8F		1330																X	W	P	1	X
14	V24PMW82		1355	X																W	G	4	
15	V24PIW81		1405	X																W	G	4	
16	V24PIW82		1415	X																W	G	4	
17	V99W632		1700	X																W	G	4	

13 containers

TURN-AROUND TIME: Standard

OBSERVATIONS/COMMENTS:

MATRIX TYPE: S = Soil, W = Water, SD = Sediment
CONTAINER TYPE: E = Encore
G = Glass, SS = Stainless Steel, P = Plastic
PRESERVATIVES: All samples are preserved at 4° C. Water samples are preserved as indicated on the sample labels.
TEMPERATURE BLANK EACH COOLER: YES NO

RELINQUISHED BY: Francesca Perrell	SIGNATURE:	TETRA TECH, INC.	DATE: 3/9/06	TIME: 1105	TOTAL NUMBER OF CONTAINERS: 37
RECEIVED BY: A. GALICIA	SIGNATURE:	COMPANY: EMAX	DATE: 3/9/06	TIME: 1105	METHOD OF SHIPMENT: COURIER
RELINQUISHED BY: A. GALICIA	SIGNATURE:	COMPANY: EMAX	DATE: 3/9/06	TIME: 1440	SPECIAL SHIPMENT/HANDLING/STORAGE REQUIREMENTS:
RECEIVED BY: INDRA PATEL	SIGNATURE:	COMPANY: EMAX	DATE: 3-9-06	TIME: 1440	

Tt-IRP-009 (04/26/05)

DISTRIBUTION: White = Lab Canary = Client Pink = Tetra Tech, Inc.

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06C098

CHAIN OF CUSTODY RECORD

K5/VW01-11,12

SITE 24 DATE 3/9/06 PAGE 1 OF 2

CLIENT: Vandenberg, AFB
PROJECT NAME: BGMP
PROJECT MANAGER: Kevin McNamara
TC#: T99105-06
SAMPLERS (Signatures)
X
X

	SAMPLE NO.	DATE	TIME	SW8260 Volatile Organics	SW8015 Diesel, Gasoline	SW8081 Pesticides	SW8082 PCBs	SW8270 SVOCs	SW8270 SIM PAHs	SW6010 / 7470 / 7471 Metals	E218.6 Chromium VI	E300/310.1/160.1 CL/S/ALK/TDS	E353.3/E415.1 N / TOC	RSK 175	E376.2 Sulfide	E314.0 Perchlorate	SW6010 (As, Cd, Sb, Se, Tl only)			Matrix Type	Container Type	Number of Containers	Filtered Sample	OBSERVATIONS/COMMENTS:
1	V24TB1214	3/9/06	0805	X																W	G	2		
2	V24MW11A		1325	X	X																G	6		
3	V24MW11AF		1330														X				P	1	X	
4	V24MW11B		1305	X	X																G	6		
5	V24MW11BF		1310														X				P	1	X	
6	V24MW14A		1405	X	X																G	6		1½ L. Amber Sm Diesel
7	V24MW14AF		1410														X				P	1	X	
8	V24MW15A		1345	X	X																G	6		
9	V24MW15AF		1350														X				P	1	X	
10	V24MW16B		1245	X	X																G	6		

ANALYTICAL METHODS

TURN-AROUND TIME: Standard

OBSERVATIONS/COMMENTS:

MATRIX TYPE: S = Soil, W = Water, SD = Sediment
CONTAINER TYPE: E = Encore; G = Glass, SS = Stainless Steel, P = Plastic
PRESERVATIVES: All samples are preserved at 4° C. Water samples are preserved as indicated on the sample labels.
TEMPERATURE BLANK EACH COOLER: YES NO

RELINQUISHED BY:	SIGNATURE:		DATE:	TIME:	TOTAL NUMBER OF CONTAINERS
Francesca Perrell		TETRA TECH, INC.	3/10/05	1110 AM	36 of 67
RECEIVED BY: A. GALICIA	SIGNATURE:	COMPANY: EMAX	DATE: 3/10/06	TIME: 1110	METHOD OF SHIPMENT: COURIER
RELINQUISHED BY: A. GALICIA	SIGNATURE:	COMPANY: EMAX	DATE: 3/10/06	TIME: 1440	SPECIAL SHIPMENT/HANDLING/STORAGE REQUIREMENTS:
RECEIVED BY: J. LUNA	SIGNATURE:	COMPANY: EMAX	DATE: 3/10/06	TIME: 1440	

T= 3.9°C, T= 3.0°C, T= 3.5°C

Tt-IRP-009 (04/26/05)

DISTRIBUTION: White = Lab Canary = Client Pink = Tetra Tech, Inc.

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06C098

CHAIN OF CUSTODY RECORD

SITE 24 DATE 3/9/06 PAGE 2 OF 2

CLIENT: Vandenberg, AFB
PROJECT NAME: BGMP
PROJECT MANAGER: Kevin McNamara
TC#: T99105-06
SAMPLERS (Signatures)
X
X

	SAMPLE NO.	DATE	TIME	SW8260 Volatile Organics	SW8015 Diesel/ Gasoline	SW8081 Pesticides	SW8082 PCBs	SW8270 SVOCs	SW8270 SIM PAHs	SW6010 / 7470 / 7471 Metals	E218.6 Chromium VI	E300/310.1/160.1 CL/S/ALK/TDS	E353.3/E415.1 N / TOC	RSK 175	E376.2 Sulfide	E314.0 Perchlorate	SW6010 (As,Cd,Se, Tl,only)	SW8015 gas		Matrix Type	Container Type	Number of Containers	Filtered Sample	OBSERVATIONS/COMMENTS:
11	V24MW16BF	3/9/06	1250														X			W	P	1	X	
12	V24PMW18		1450	X	X													X			G	9		
13	V24PMW18F		1455														X				P	1	X	
14	V24MW21B		1400	X	X																G	6		
15	V24MW21BF		1405														X				P	1	X	
16	V24PMW21		1340	X	X																G	6		
17	V24PMW21F		1345														X				P	1	X	
18	V24MW20B		1425	X	X																G	5		only 1 amber for Diesel
19	V24MW20BF	↓	1430														X			↓	P	1	X	

ANALYTICAL METHODS

TURN-AROUND TIME: Standard

MATRIX TYPE: S = Soil, W = Water, SD = Sediment
CONTAINER TYPE: G = Glass, SS = Stainless Steel, P = Plastic, E = Encore
PRESERVATIVES: All samples are preserved at 4° C. Water samples are preserved as indicated on the sample labels.
TEMPERATURE BLANK EACH COOLER: YES NO

RELINQUISHED BY: Francesca Perrelli	SIGNATURE:	TETRA TECH, INC.	DATE: 3/10/06	TIME: 11:10 AM	TOTAL NUMBER OF CONTAINERS: 31 of 67
RECEIVED BY: A. GALICIA	SIGNATURE:	COMPANY: EMAX	DATE: 3/10/06	TIME: 1110	METHOD OF SHIPMENT: COURIER
RELINQUISHED BY: A. GALICIA	SIGNATURE:	COMPANY: EMAX	DATE: 3/10/06	TIME: 1440	SPECIAL SHIPMENT/HANDLING/STORAGE REQUIREMENTS:
RECEIVED BY: V. LUNA	SIGNATURE:	COMPANY: EMAX	DATE: 3/10/06	TIME: 1440	

DISTRIBUTION: White = Lab Canary = Client Pink = Tetra Tech, Inc.

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H2 / V001-28

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06C115

CHAIN OF CUSTODY RECORD

SITE 24 DATE 3/10/06 PAGE 1 OF 3

CLIENT	Vandenberg, AFB
PROJECT NAME	BGMP
PROJECT MANAGER	Kevin McNamara
TC#	T99105-06
SAMPLERS (Signatures)	X [signature] X [signature]

TURN-AROUND TIME: Standard

ANALYTICAL METHODS

	SAMPLE NO.	DATE	TIME	SW8260 Volatile Organics	SW8015 Diesel / ~~Gasoline~~	SW8081 Pesticides	SW8082 PCBs	SW8270 SVOCs	SW8270 SIM PAHs	SW6010 / 7470 / 7471 Metals	E218.6 Chromium VI	E300/310.1/160.1 CL/S/ALK/TDS	E353.3/E415.1 N / TOC	RSK 175	E376.2 Sulfide	E314.0 Perchlorate	SW6010 (Al, As, Cd, Se, Sb, Tl only)			Matrix Type	Container Type	Number of Containers	Filtered Sample	OBSERVATIONS/COMMENTS
1	V24TB1215	3/10/06	0800	X																W	G	2		
2	V24MW4BM	↓	1010	X	X															↓	G	15		MS/MSD
3	V24MW4BF		1015														X				P	1	X	
4	V24PMW11		1245	X	X																G	6		
5	V24PMW11F		1250														X				P	1	X	
	~~V24MW12A~~		~~1315~~	~~X~~	~~X~~																~~G~~	~~6~~		← F.P.
	~~V24MW12AF~~		~~1320~~														~~X~~				~~P~~	~~1~~	~~X~~	← F.P.
6	V24MW14B		1155	X	X																G	6		
7	V24MW14BF		1200														X				P	1	X	
8	V24MW15B	↓	1105	X	X															↓	G	6		

MATRIX TYPE: S = Soil, W = Water, SD = Sediment

CONTAINER TYPE: E = Encore, G = Glass, SS = Stainless Steel, P = Plastic

PRESERVATIVES: All samples are preserved at 4° C. Water samples are preserved as indicated on the sample labels.

TEMPERATURE BLANK EACH COOLER: (YES) NO

	SIGNATURE	COMPANY	DATE	TIME
RELINQUISHED BY: Francesca Perrell	[signature]	TETRA TECH, INC.	March 13 2006	1110 Am
RECEIVED BY: A. GALICIA	[signature]	EMAX	3-13-06	1110
RELINQUISHED BY: A. GALICIA	[signature]	EMAX	3-13-06	1400
RECEIVED BY: I FLORENDO	[signature]	EMAX	3-13-06	1400

TOTAL NUMBER OF CONTAINERS: 45 of 101

METHOD OF SHIPMENT: COURIER

SPECIAL SHIPMENT/HANDLING/STORAGE REQUIREMENTS:

1) T = 3.6 °C 3) T = 3.8 °C
2) T = 3.0 °C 4) T = 3.5 °C

1002

Tt-IRP-009 (04/26/05)

DISTRIBUTION: White = Lab Canary = Client Pink = Tetra Tech, Inc.

TETRA TECH, INC.
4213 State Street, Suite 100
Santa Barbara, CA 93110
Phone (805) 681-3100
FAX (805) 681-3108

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OGC115

CHAIN OF CUSTODY RECORD

SITE 24 DATE 3/10/06 PAGE 2 OF 3

CLIENT	Vandenberg, AFB
PROJECT NAME	BGMP
PROJECT MANAGER	Kevin McNamara
TC#	T99105-06
SAMPLERS (Signatures)	
X	

ANALYTICAL METHODS

SAMPLE NO.	DATE	TIME	SW8260 Volatile Organics	SW8015 Diesel / ~~Gasoline~~	SW8081 Pesticides	SW8082 PCBs	SW8270 SVOCs	SW8270 SIM PAHs	SW6010 / 7470 / 7471 Metals	E218.6 Chromium VI	E300/310.1/160.1 CL/S/ALK/TDS	E353.3/E415.1 N / TOC	RSK 175	E376.2 Sulfide	E314.0 Perchlorate	SW6010 (Sb, Tl only)	SW8015 Gasoline			Matrix Type	Container Type	Number of Containers	Filtered Sample	OBSERVATIONS/COMMENTS:
9	V24MW15BF	3/10/06	1110													X				W	P	1	X	
10	V99W633		1700	X	X																G	6		
11	V99W633F		1705													X					P	1	X	
12	V24MW17B		1000	X	X																G	6		
13	V24MW17BF		1005													X					P	1	X	
14	V24PMW19		1350	X	X												X				G	8		Only 3 Voas for VOCs Collected
15	V24PMW19F		1355													X					P	1	X	
16	V24MW19B		1250	X	X																G	6		
17	V24MW19BF		1255													X					P	1	X	
18	V24MW23B		1100	X	X															↓	G	6		

TURN-AROUND TIME: Standard

OBSERVATIONS/COMMENTS:

MATRIX TYPE: S = Soil, W = Water, SD = Sediment
CONTAINER TYPE: E = Encore; G = Glass, SS = Stainless Steel, P = Plastic
PRESERVATIVES: All samples are preserved at 4° C. Water samples are preserved as indicated on the sample labels.
TEMPERATURE BLANK EACH COOLER: YES / NO

RELINQUISHED BY: Francesca Ferrelli	SIGNATURE:	TETRA TECH, INC.	DATE: March 13 2006	TIME: 11:10 AM	TOTAL NUMBER OF CONTAINERS: 37 of 101
RECEIVED BY: A. Galicia	SIGNATURE:	COMPANY: EMAX	DATE: 3-13-06	TIME: 1110	METHOD OF SHIPMENT: Courier
RELINQUISHED BY: A. Galicia	SIGNATURE:	COMPANY: EMAX	DATE: 3-13-06	TIME: 1400	SPECIAL SHIPMENT/HANDLING/STORAGE REQUIREMENTS:
RECEIVED BY: A. Florendo	SIGNATURE:	COMPANY: EMAX	DATE: 3-13-06	TIME: 1400	

DISTRIBUTION: White = Lab Canary = Client Pink = Tetra Tech, Inc.

06C115

TETRA TECH, INC.
4213 State Street, Suite 100
Santa Barbara, CA 93110
Phone (805) 681-3100
FAX (805) 681-3108

SHIPPED TO: EMAX Labs
1835 West 205th Street
Torrance, CA 90501

CHAIN OF CUSTODY RECORD

SITE 24 DATE 03/10/06 PAGE 3 OF 3

CLIENT	Vandenberg, AFB
PROJECT NAME	BGMP
PROJECT MANAGER	Kevin McNamara
TC#	T99105-06
SAMPLERS (Signatures)	X [signature]
	X

TURN-AROUND TIME: Standard

OBSERVATIONS/COMMENTS:

	SAMPLE NO.	DATE	TIME	SW8260 Volatile Organics	SW8015 Diesel/ ~~Gasoline~~	SW8081 Pesticides	SW8082 PCBs	SW8270 SVOCs	SW8270 SIM PAHs	SW6010 / 7470 / 7471 Metals	E218.6 Chromium VI	E300/310.1/160.1 CL/S/ALK/TDS	E353.3/E415.1 N / TOC	RSK 175	E376.2 Sulfide	E314.0 Perchlorate	SW6010 (Al, Sb, As, Cd, Se, Ti only)	Matrix Type	Container Type	Number of Containers	Filtered Sample
19	V24MW23BF	03/10/06	1105														X	W	P	1	X
20	V24MW24B	↓	1135	X	X													↓	G	6	
21	V24MW24BF	↓	1140														X	↓	P	1	X
22	V24MW25B	↓	1220	X														↓	G	4	
23	~~V24MW~~ V99W634	↓	1700	X	X													↓	G	6	
24	V99W634F	↓	1705														X	↓	P	1	X

MATRIX TYPE: S = Soil, W = Water, SD = Sediment

CONTAINER TYPE: E = Encore, G = Glass, SS = Stainless Steel, P = Plastic

PRESERVATIVES: All samples are preserved at 4° C. Water samples are preserved as indicated on the sample labels.

TEMPERATURE BLANK EACH COOLER: (YES) NO

	SIGNATURE	COMPANY	DATE	TIME
RELINQUISHED BY: Francesca Perrolle	[signature]	TETRA TECH, INC.	13 March 2006	11:10 am
RECEIVED BY: A. Gallegos	[signature]	EMAX	3-13-06	1110
RELINQUISHED BY: A. Gallegos	[signature]	EMAX	3-13-06	1400
RECEIVED BY: A. Florentino	[signature]	EMAX	3-13-06	1400

TOTAL NUMBER OF CONTAINERS: 19 of 101

METHOD OF SHIPMENT: COURIER

SPECIAL SHIPMENT/HANDLING/STORAGE REQUIREMENTS:

DISTRIBUTION: White = Lab Canary = Client Pink = Tetra Tech, Inc.

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Santa Barbara, CA 93110
Phone (805) 681-3100
FAX (805) 681-3108

SHIPPED TO: EMAX Labs
1835 West 205th Street
Torrance, CA 90501

H2

0606123

CHAIN OF CUSTODY RECORD

H2/VW01-12

SITE 24 DATE 3/13/06 PAGE 1 OF 1

CLIENT: Vandenberg, AFB
PROJECT NAME: BGMP
PROJECT MANAGER: Kevin McNamara
TC#: T99105-06
SAMPLERS (Signatures)
X
X

	SAMPLE NO.	DATE	TIME	SW8260 Volatile Organics	SW8015 ~~Diesel~~ Gasoline	SW8081 Pesticides	SW8082 PCBs	SW8270 SVOCs	SW8270 SIM PAHs	SW6010 / 7470 / 7471 Metals	E218.6 Chromium VI	E300/310.1/160.1 CL/S/ALK/TDS	E353.3/E415.1 N / TOC	RSK 175	E376.2 Sulfide	E314.0 Perchlorate	SW8015 Gasoline	Matrix Type	Container Type	Number of Containers	Filtered Sample
1	V24TB1217	3/13/06	0800	X														W	G	2	
2	V24MW30A		1230	X														W	G	4	
3	V99BEB206		0815	X	X												X	W	G	8	
4	V24MW26A		1050	X														W	G	4	
5	V24MW26B		1300	X														W	G	4	
6	V24PMW26	↓	1340	X														W	G	4	

TURN-AROUND TIME: Standard

OBSERVATIONS/COMMENTS:

MATRIX TYPE: S = Soil, W = Water, SD = Sediment
CONTAINER TYPE: E = Encore; G = Glass, SS = Stainless Steel, P = Plastic
PRESERVATIVES: All samples are preserved at 4° C. Water samples are preserved as indicated on the sample labels.
TEMPERATURE BLANK EACH COOLER: (YES) NO

RELINQUISHED BY: P. Leonard	SIGNATURE:	TETRA TECH, INC.	DATE: 3/14/06	TIME: 1105	TOTAL NUMBER OF CONTAINERS: 26 OF 26
RECEIVED BY: A. GALICIA	SIGNATURE:	COMPANY: EMAX	DATE: 3/14/06	TIME: 1105	METHOD OF SHIPMENT: Courier
RELINQUISHED BY: A. GALICIA	SIGNATURE:	COMPANY: EMAX	DATE: 3/14/06	TIME: 1400	SPECIAL SHIPMENT/HANDLING/STORAGE REQUIREMENTS:
RECEIVED BY: A. FOOTENO	SIGNATURE:	COMPANY: EMAX	DATE: 3-14-06	TIME: 1400	

T-3.0

Tt-IRP-009 (04/26/05)

DISTRIBUTION: White = Lab Canary = Client Pink = Tetra Tech, Inc.

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4213 State Street, Suite 100
Santa Barbara, CA 93110
Phone (805) 681-3100
FAX (805) 681-3108

SHIPPED TO: EMAX Labs
1835 West 205th Street
Torrance, CA 90501

06C134

CHAIN OF CUSTODY RECORD

SITE 24 DATE 03/14/06 PAGE 1 OF 1

CLIENT: Vandenberg, AFB
PROJECT NAME: BGMP
PROJECT MANAGER: Kevin McNamara
TC#: T99105-06

SAMPLERS (Signatures)
X Jeejook Chi
X

	SAMPLE NO.	DATE	TIME	SW8260 Volatile Organics	SW8015 ~~Gasoline~~ Diesel	SW8081 Pesticides	SW8082 PCBs	SW8270 SVOCs	SW8270 SIM PAHs	SW6010 / 7470 / 7471 Metals	E218.6 Chromium VI	E300/310.1/160.1 CL/S/ALK/TDS	E353.3/E415.1 N / TOC	RSK 175	E376.2 Sulfide	E314.0 Perchlorate	SW6010B(Al,Sb,As,Cd,Se,etc)				Matrix Type	Container Type	Number of Containers	Filtered Sample
1	V24mw10A	03/14/06	1430	X	X																W	G	5	
2	V24mw10AF		1435														X					P	1	X
3	V24mw28A		1515	X																		G	3	
4	V24mw29A		1500	X																		G	3	
5	V24TB1221		0810	X																		G	2	
6	V24mw27B		1520	X																		G	3	
7	V99W636		1710	X																		G	3	

ANALYTICAL METHODS

TURN-AROUND TIME: Standard

OBSERVATIONS/COMMENTS: Sample NO. V24mw29A

MATRIX TYPE: S = Soil, W = Water, SD = Sediment
CONTAINER TYPE: E = Encore; G = Glass, SS = Stainless Steel, P = Plastic
PRESERVATIVES: All samples are preserved at 4° C. Water samples are preserved as indicated on the sample labels. T-2.8
TEMPERATURE BLANK EACH COOLER: YES NO

RELINQUISHED BY:	SIGNATURE:		DATE:	TIME:
P. Leonard		TETRA TECH, INC.	3/15/06	1111
RECEIVED BY: A-GALICIA	SIGNATURE:	COMPANY: EMAX	DATE: 3/15/06	TIME: 1111
RELINQUISHED BY: A. GALICIA	SIGNATURE:	COMPANY: EMAX	DATE: 3/15/06	TIME: 1515
RECEIVED BY: LINDRA PATEL	SIGNATURE:	COMPANY: EMAX	DATE: 3/15/06	TIME: 1515

TOTAL NUMBER OF CONTAINERS: 20
METHOD OF SHIPMENT: Courier
SPECIAL SHIPMENT/HANDLING/STORAGE REQUIREMENTS:

Tt-IRP-009 (04/26/05)

DISTRIBUTION: White = Lab Canary = Client Pink = Tetra Tech, Inc.